Provincial preferences in private equity

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Abstract

This paper identifies a strong tendency for Canadian private equity investors to finance entrepreneurs that reside in the same province. For all types of investors and entrepreneurial firms, in terms of the numbers of investments (13,729 transactions), 84.42% of investments were intra-provincial. In terms of the total value of these transactions ($20,193,896,909 in 1997 dollars), 61.15% of the investment value was intra-provincial. We provide evidence that certain economic and institutional factors systematically give rise to differences in the frequency of inter- versus intra-provincial investments. We interpret the evidence in relation to the appropriateness of Canada's fragmented provincial securities regulatory structure.

Executive Summary

We study the frequency with which private equity investors and entrepreneurs are located in different provinces. We present descriptive statistics that show the existence of a strong provincial preference for domestic investing. For all types of investors and entrepreneurial firms, in terms of the numbers of investments (13,729 transactions), 84.42% of investments involved an investor and entrepreneur that resided in the same province. In terms of the total value of these transactions ($20,193,896,909 in 1997 dollars), 61.15% of the investment value was intra-provincial. This is an expected result, as it is easier for an investor to provide value-added advice to investees that are geographically proximate. The data are therefore consistent with the view that Canadian venture capitalists and other private equity investors provide value-added advice to investees, and the venture capital market is very important for Canadian entrepreneurship and economic growth.

The data used in this study are from Macdonald & Associates Limited. Macdonald & Associates has built the most comprehensive database on venture capital and private equity in Canada. Transactions are from numerous different types of investors, such as corporate, institutional, government, private (limited partnerships), and labour-sponsored venture capital funds. The types of investee firms in the database are also broad in scope: various stages of development (start-up, expansion, buyout, turnaround) industries (life-sciences, other high tech, and traditional non-high tech), and whether the investee firm is privately held or publicly traded on a stock exchange. A wide variety of securities (common equity, preferred equity, convertible preferred equity, debt, convertible debt, warrants, mixes of debt and equity) and deal types (staging, syndication, and amounts invested ranging from less than $10,000 to more than $100,000,000) appear in the data.

We show differences in the likelihood of intra- versus inter-provincial investing depends on most of these firm- and transaction-specific characteristics. We also document differences in the likelihood of intra- versus inter-provincial investing over time, as well as differences depending on the province. Inter-provincial investing (in which the entrepreneur and investor are not in the same province) is more likely when the investee firm is publicly traded, in 1999 – 2003 relative to 1991 – 1998, in syndicated investments, in preferred equity and convertible preferred equity investments, and in investments where the entrepreneur is resident in British Columbia, Alberta, Saskatchewan, Newfoundland, New Brunswick, Nova Scotia, or Prince Edward Island. Intra-provincial investing (in which the entrepreneur and investor are in the same province) is more likely for turnaround stage firms, firms in traditional industries (as opposed to life science and other types of high tech firms), government and labour-sponsored investors, first-round investments as opposed to follow-on investments, smaller deal sizes, debt investments, and for entrepreneurs resident in Ontario and Quebec.

Unlike the U.S., Canada has a different securities regulator and set of similar but distinct securities regulations in each province. It is important to consider the efficient regulation of venture capital markets (see, e.g., theoretical work on topic by (see, e.g., theoretical work on topic by Keuschnigg, 2003, 2004; Keuschnigg and Nielsen, 2001, 2003a,b,c, 2004). We interpret the results in this paper from the perspective of the benefits and drawbacks for federal versus provincial securities regulation, with reference to available comparative evidence from U.S. studies. On one hand, one may interpret the evidence in favor of regional securities regulators and regulations. A significant majority of investments (that is, private equity investments) are carried out by investors and investees resident in the same province, and therefore local regulations can be tailored to meet the needs of the local market. In the U.S., for example, despite the federal Securities and Exchange Commission, there is a continuing state role in regulating intra-state and exempt offerings. On the other hand, one may interpret the evidence in favor of a national regulator. "Home-bias" is present in U.S. venture capital markets, as well as among U.S. mutual funds. Generally, it is well documented that there is a strong informational advantage to investing in geographically proximate companies, and both venture capitalists and mutual funds in the U.S. tend to earn higher returns when a greater proportion of their portfolio of investees was geographically proximate. The existence of home bias is not a sufficient condition to conclude that securities markets should be regulated differently in different regions and/or that the identity of the regulator should be different for different regions. For example, the U.S. does exhibit a significant degree of home bias in private equity markets, but the U.S. also has a uniform securities act and a single federal regulatory body (albeit, there is a continuing state role in regulating intra-state and exempt offerings). Differences in regulations across provinces may in fact exacerbate the degree of home bias.

1. Introduction

This paper identifies a strong tendency for Canadian private equity investors to finance entrepreneurs that reside in the same province (hereafter referred to as "intra-provincial investments"). For all types of investors and entrepreneurial firms, in terms of the numbers of investments (13,729 transactions), 84.42% of investments involved an investor and entrepreneur that resided in the same province. In terms of the total value of these transactions ($20,193,896,909 in 1997 dollars), 61.15% of the investment value was intra-provincial. We also find differences in the frequency of transactions in which entrepreneurs and investors reside in different provinces (hereafter referred to as "inter-provincial investments"), and provide evidence that certain economic and institutional factors systematically give rise to differences in the frequency of inter- versus intra-provincial investments.

The "home preference" or "provincial preference" for private equity investments is an expected result. Private equity investors, particularly venture capital funds, are widely regarded as active value-added investors that spend a significant amount of time serving on entrepreneurial firm board of directors, providing strategic, financial, marketing and administrative advice.[1] Investors even frequently retain strong veto and control rights, including the contractual right to replace the founding entrepreneur as CEO of the company. It is therefore natural to expect private equity investors to invest in geographically proximate entrepreneurial firms.

Geographic proximity in venture capitalist investing has been documented in the U.S. Professor Lerner shows VCs that are geographically closer to their entrepreneurial investee firms are more likely to serve on the firm's board of directors.[2] Similarly, Professors Sorenson and Stuart show the likelihood of a venture capitalist investing in an entrepreneurial firm increases the greater the degree of proximity between the investor and entrepreneur.[3] In short, the "home bias" preference is found in U.S. venture capitalist financings of privately held companies. As well, home bias in private equity is consistent with recent evidence from U.S. mutual fund investments which show a geographically proximate preference for investments in publicly traded companies.[4] Further evidence shows that a geographically proximate

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1 See, e.g., Barry *et al*. (1990); Gompers (1995, 1996, 1998); Gompers and Lerner (1999, 2000, 2001); Gorman and Sahlman (1989); Kanniainen and Keuschnigg (2003, 2004); Lerner (1994, 1995); Sapienza, (1992); Sapienza *et al*. (1996); De Clercq and Sapienza (2001); Manigart et al. (2002a,b,c); Lockett and Wright (1999, 2001).

2 Lerner (1995); Gompers and Lerner (1999). As a related matter, Sapienza et al. (2004) discuss the costs and benefits of domestic versus internationalization in entrepreneurial learning.

3 The Sorenson and Stuart (2001) study is based on an artificially constructed dependent variable of feasible investments for the venture fund. We adopt a different approach without the use of artificially generated variables in this paper, and address a different set of issues.

4 Coval and Moskowitz (2003b).

investment strategy (within a 100 kilometer radius) increases the average annual mutual fund returns by 2.67%.[5]

This paper contributes to the literature on home bias by exploring the factors that give rise to inter- versus intra-provincial investment activity, and extends the literature in three primary ways. First, we provide a first study of home bias in a non-U.S. dataset – Canada – which offers an analysis of unique institutional market features. For example, we compare home-province preferences for Quebec (a French-speaking civil law province) and other provinces (English speaking common law provinces), and find significant differences in the factors that give rise to intra- versus inter-provincial investment. As well, the Canadian venture capital market is relatively young, and we observe differences over time as the market has matured over the 1991 – 2003 (1st quarter) period.

Second, we study a more diverse group of entrepreneurial firms than those financed by pure venture capitalists. Venture capitalists in the U.S. invest in entrepreneurial start-ups, and typically high tech firms. In our sample, we consider the broader class of all types of private equity investment, including start-ups as well as expansion stage, buyout[6] and turnaround investments, as well as investments in a diverse array of industries. Some of the investees in our sample also include publicly traded companies. In the datasets considered in prior U.S. research, the venture capital funds are typically restricted from investing in buyout, turnaround, and publicly listed companies.[7] The broader array of entrepreneurial firms considered in our dataset enables a first consideration of geography and private equity investments generally.

Third, we consider different types of investors, including private independent (limited partnership) and corporate investors (as in U.S. studies of geography), as well as institutional, government, and labour-sponsored venture capital funds. Our analysis of geography and investor type enables insights into the investment strategies and constraints across different types of institutions. To our knowledge, geography and investment across a diverse array of different types of investors has not been the subject of empirical study in any market in any country.

The data used in this study are from Macdonald & Associates Limited. Macdonald & Associates has built the most comprehensive database on venture capital and private equity activity in Canada. We consider 13,729 investments over the period 1991 (1st quarter) – 2003 (1st quarter). Transactions are from

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5 Coval and Moskowitz (2003a).

6 See, e.g., Wright *et al.* (2001) on buyouts.

7 Gompers and Lerner (1996).

numerous different types of investors: corporate, institutional, government, private (typically limited partnerships), labour-sponsored venture capital corporations (LSVCCs), and "other" types (investors with an interest in specific private equity deals, but without a permanent market presence). The types of investee firms in the database are also broad in scope: various stages of development (start-up, expansion, buyout, turnaround and "other" not specifically identified), industries (life-sciences, other high tech, and traditional non-high tech), and whether the investee firm is privately held or publicly traded on a stock exchange. A wide variety of securities appear in the data (common equity, preferred equity, convertible preferred equity, debt, convertible debt, warrants, mixes of debt and common equity, mixes of preferred equity and common equity, and other combinations) and deal types (staging, syndication, and amounts invested ranging from less than $10,000 to more than $100,000,000).

We show differences in the likelihood of intra- versus inter-provincial investing depends on most of these firm- and transaction-specific characteristics. We also document differences in the likelihood of intra- versus inter-provincial investing over time, as well as differences depending on the province. Inter-provincial investing (in which the entrepreneur and investor are not in the same province) is more likely when the investee firm is publicly traded, more likely in 1999 – 2003 relative to 1991 – 1998, syndicated investments, preferred equity and convertible preferred equity investments, and entrepreneurs resident in British Columbia, Alberta, Saskatchewan, Newfoundland, New Brunswick, Nova Scotia, and Prince Edward Island (while the frequency of inter-provincial investments in Manitoba is similar to the national average). Intra-provincial investing (in which the entrepreneur and investor are in the same province) is more likely for turnaround stage firms, firms in traditional industries (as opposed to life science and other types of high tech firms), government and labour-sponsored investors, more likely for first-round investments as opposed to follow-on investments, smaller deal sizes, debt investments, and for entrepreneurs resident in Ontario and Quebec.

This paper proceeds as follows. Section 2 briefly describes Canada's venture capital and private equity industry. In section 3 we develop testable hypotheses with the institutional structure and in light of prior research. The data are described in section 4, and univariate comparison tests are carried out on the proportion of inter- versus intra-provincial investments for different characteristics on the investments. Multivariate tests of inter- versus intra-provincial investment are carried out in Section 5. Section 6 specifies limitations with the data and the types of tests that can be carried out. Section 7 discusses the evidence in view of the debate on the appropriate securities regulatory structure in Canada. The last section concludes.

2. The Scope of Venture Capital and Private Equity in Canada

This section provides an overview of Canada's venture capital and private equity industry. Summary statistics are presented. These statistics have been compiled from every published issue of the Canadian Venture Capital Association (CVCA) Annual Reports (1978 – 2003 for the years 1977 – 2002).[8] Not all of the same statistics were reported each year; the figures presented in this section make use of all of the available data.

Canada's venture capital and private equity funds managed in total approximately $22.5 billion in capital in 2002 (or approximately $20 billion in 1997 dollars).[9] The growth of Canada's venture capital and private equity market by type of investor is depicted in Figure 1: corporate, institutional, government, private limited partnerships, labour-sponsored venture capital corporations (LSVCCs), and "other" types of investors with an interest in specific private equity deals, but without a permanent market presence. Each of these types of funds in Canada has been described in previous research.[10] Private independent funds tend to be organized as limited partnerships. Corporate venture capital funds are subsidiaries of large corporations. Federal or provincial governments run government funds through employing professional venture capital fund managers. [11] Hybrid funds are "funds which are formed in response to a government incentive or an investment by government alongside private investors, or which have secured more than 50% of their capital from another hybrid fund".[12]

Canada's venture capital market is unique in that most of the provinces (all except Alberta and Newfoundland) have adopted legislation giving rise to labour-sponsored venture capital corporations (LSVCCs). Briefly, LSVCCs are tax-subsidized mutual funds that invest in private equity. Investors in LSVCCs are limited to individuals, unlike private limited partnerships that receive the majority of their capital from institutional investors like pension funds.[13] LSVCCs have accumulated the most capital under

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8 Source: Macdonald and Associates, Ltd. (see www.canadavc.com), for the Canadian Venture Capital Association (CVCA) (see www.cvca.ca).

9 *Ibid.*

10 Macdonald (1992); MacIntosh (1994); Halpern (1997); Amit *et al.* (1998); Brander *et al.* (2002).

11 Examples of government funds include the Crown Investments Corporation of Saskatchewan and Innovatech du Grand Montreal. Pension funds affiliated with government bodies are classified as institutional investors by the Canadian Venture Capital Association (see http://www.cvca.ca/full_members/index.html).

12 Macdonald (1992) at 4 n3. Since 2000, Macdonald and Associates, Ltd have adopted the category "institutional" instead of "hybrid".

13 Osbourne and Sandler (1998) discuss LSVCCs in much greater detail. The CVCA Annual Reports (posted at http://www.cvca.ca/statistical_review/index.html) provide details on the sources of capital by type of institutional investor.

management in recent years (see Figure 1), which can be explained by the tax incentives for investors in LSVCCs.[14]

The following mutually exclusive stages of entrepreneurial firm development in venture capital and private equity are as follows:[15]

- *Start-up Stage*: the entrepreneurial firm may be based on a concept without a product or any marketing, or it may have a product being developed, but not yet sold commercially;

- *Expansion Stage*: the entrepreneurial firm requires significant capital for plant expansion, marketing, and to initiate full commercial production and sales;

- *Acquisition/Buyout Stage* (hereafter "*Buyout Stage*"): the operating management of the entrepreneurial firm acquires a product line, a division, or a company;

- *Turnaround Stage*: the entrepreneurial firm that was once profitable but is now earning less than its cost of capital.

Firms in the later stages (buyout and turnaround) have a longer track record and are easier for the investor to conduct a due diligence review. Start-up firms exhibit the greatest information problems for investors at the time of due diligence review before investment.

The numbers of investment and total amounts invested in Canada at each stage of development are depicted in Figures 2a and 2b, respectively. In 2000 (2001), 2671 (2043) investments valued at approximately $6.6 billion ($3.8 billion) were completed for all stages of venture capital and private equity in 2000. For comparison, in 2000 (2001), the total number of IPOs on Canadian exchanges was 101 (74) for a total value of $6.8 billion ($5.9 billion).[16] Total investment activity in Canada's venture capital and private equity markets amounted to approximately 0.38% of GDP in Canada over the 1998-2001 period, compared to 0.63% in the United States and 0.30% in the European Union.[17]

Canada comprises 10 provinces and 3 northern territories. As the private equity database considered herein does not comprise investors or investees from the northern territories, our attention is

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14 Osbourne and Sandler (1998); Cumming and MacIntosh (2003c).

15 Precise definitions are available at http://www.canadavc.com/info.aspx?page=glossary.

16 Source: PriceWaterhouseCoopers http://www.pwc.com/extweb/ncsurvres.nsf/DocID/FE3FEFD25A793A8485256B9D00527270.

17 Source: OECD http://r0.unctad.org/en/subsites/dite/pdfs/Frank_Lee.pdf.

on the 10 provinces (from west to east): British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Newfoundland, New Brunswick, Nova Scotia and Prince Edward Island. Quebec is a French speaking civil law province; the other provinces are English speaking and common law. The majority of economic activity in Canada is generated in Ontario, Quebec, British Columbia and Alberta.18 A majority of venture capital and private equity transactions in Canada are carried out in Quebec and Ontario. The geographic distribution of investment by numbers of transactions and the value of transactions is depicted in Figures 3a and 3b (certain smaller provinces are aggregated together in these figures as per the CVCA Annual Reports; however, our disaggregated data and empirical tests in the subsequent sections consider all provinces separately).

The CVCA covers industries traditionally targeted by venture capital and private equity funds. The CVCA covers the following high tech industries: biotechnology, medical/health related, communications, computer related, Internet related, electronics and "other" technology. The CVCA also covers the following traditional industries: consumer related, manufacturing and "miscellaneous".[19] The numbers and dollar amounts of investments by sector are depicted in Figures 4a, 4b and 4c.

In the subsequent sections we explore the aggregated data presented in this section by making use of disaggregated transaction-specific data. Our focus is on understanding intra- versus inter-provincial investment decisions and testing hypotheses developed in section 3.

3. Institutional Structure, Prior Research and Testable Hypotheses

In this section we describe economic barriers (subsection 3.1 and legal and institutional impediments (subsection 3.2 to inter-provincial investment. In subsection 3.3 we summarize the factors that are conjectured to affect the frequency of inter-provincial investment in the form of testable hypotheses. Those hypotheses are tested in section 4 with a new dataset described in section 4.

3.1 Economic Impediments to Inter-Provincial Investment

Venture capital and private equity investors invest in companies that are geographically proximate for at least three reasons.[20] First, it is easier to conduct due diligence and screening of companies that are geographically proximate. Venture investors typically receive more than 1000 business plans per year, but seriously consider fewer than 50 companies, and carry out fewer than 10

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18 Source: http://www.innovationstrategy.gc.ca/cmb/innovation.nsf/ProvincialProfiles/.

19 See http://www.cvca.ca/statistical_review/table_3x2002.html.

20 Gompers and Lerner (1999); Sorenson and Stuart (2001).

investments.[21] Venture capital portfolios are small.[22] Second, geographic proximity facilitates information flow and monitoring, as well as the ability to serve effectively on a board of directors and provide value-added advice (strategic, marketing, administrative and financial). Third, while data are unavailable to date, one may postulate[23] that exiting the investment is easier to facilitate and therefore the investment is more profitable when the investor and entrepreneur are geographically proximate. In net, regardless of institutional impediments (discussed below in subsection 3(b)), we expect to find a small number of inter-provincial investments relative to intra-provincial investments.

3.2 Institutional Impediments to Inter-Provincial Investment

There are at least five barriers to inter-provincial private equity investment in Canada: securities regulation, corporate law, tax law, labour-sponsored venture capital corporation legislation, and governmental fund investment objectives. Each is very briefly discussed in turn.

Securities laws and securities commissions in Canada differ in each province. Regulations themselves are similar, but there are notable differences in different provinces. For the purpose of private equity investment, it is most notable that there are differences in the exemptions from the prospectus requirement among the provinces.[24] These differences are relevant for the smaller ranges of investment of less than approximately $100,000 - $150,000 (depending on the province). Inter-provincial differences in securities regulation present certain impediments to inter-provincial investment activity.[25] Most notably, to conduct business in a different province, a lawyer from that province must certify that the transaction was in compliance with the securities laws of that province.

Corporate laws in Canada also differ by province, and there is a federal incorporation option in Canada. Over the 1975-1990 period, the provinces adopted changes to effect similarities in corporate laws, but there are nevertheless differences across provinces. Most companies in Canada are incorporated under either the laws of their home province, or federally.[26] That there are differences in corporate codes also presents a small institutional impediment to investment activities across the different Canadian

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21 Sahlman (1990).

22 Typically fewer than 30 companies are in a venture portfolio; see Cumming (2003).

23 This is based on mutual fund evidence provided by Coval and Moskowitz (2003a)

24 See, for example, Gillen (1998); see also the various securities commissions' webpages.

25 Harris (2002) discusses numerous pros and cons associated with the current provincial securities regulatory structure in Canada.

26 Daniels (1991); Cumming and MacIntosh (2000, 2002).

provinces, as differences in the corporate codes may necessitate different transaction structures, which could increase transaction costs.

Taxation in Canada is paid on the basis of where business is carried out. Differences in tax rates across provinces may discourage inter-provincial investment into provinces with higher tax rates.[27] As well, it is noteworthy in the venture capital context that all of the provinces have R&D tax credit programs (with the exception of Alberta), which reduces the after tax cost of R&D to between $0.45 - $0.50 per dollar of R&D expenditures depending on the size of the firm and the particular province (exceptions include Quebec with after tax costs of R&D as low as $0.29 per dollar, and Prince Edward Island with after tax costs of R&D as high as $0.58 per dollar).[28]

Labour-Sponsored Venture Capital Corporations (LSVCCs; described above in section 2) may affect inter-provincial investing activities in two ways. First, LSVCCs are required (by statute) to invest in the province in which they reside. Second, provinces without LSVCCs may have a greater unmet demand for venture finance that is not met by the needs of the local investors.[29] We may therefore conjecture less inter-provincial investment among provinces with LSVCCs, and greater inter-provincial private investment into Alberta and Newfoundland, the two provinces that do not have LSVCCs.

Finally, provincial government funds (described above in section 2) are highly unlikely to invest outside their own province. The funds are directly funded from provincial tax revenues, and it would be politically unwise to invest in companies that reside outside the province's borders.

3.3 Testable Hypotheses: Factors that Affect the Likelihood of Inter-Provincial Investment

In view of the economic and institutional factors discussed above, we can conjecture that certain factors will be systematically related to the likelihood that an investor and entrepreneur will be located in the same province. These factors are very briefly summarized below and empirical tested in the subsequent sections using the extensive Macdonald & Associates Limited database.

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[27] Combined federal-provincial corporate income tax rates on large non-manufacturing corporations (excluding special exemptions for subsidized small firms in certain sectors in certain regions) are as follows: British Columbia 35.5%, Alberta 33.5%, Saskatchewan 39%, Manitoba 37%, Ontario 30%, Quebec 31%, New Brunswick 35%, Nova Scotia 38%, Prince Edward Island 38%, and Newfoundland 36% (in the U.S. the 2002 rate is 39%). Source: http://www.innovationstrategy.gc.ca/cmb/innovation.nsf/ProvincialProfiles/.

[28] Source: http://www.innovationstrategy.gc.ca/cmb/innovation.nsf/ProvincialProfiles/.

[29] This statement assumes that there is a market failure in the provision of private equity among private venture capital funds (i.e., too few private venture capital funds), and that the LSVCCs correct such a market failure. An alternative view is that government funds and/or LSVCCs crowd out private investment. For a more detailed discussion, see Cumming and MacIntosh (2003).

Stage of Investee Firm Development: The earlier the firm's stage of development, the greater the required screening, due diligence and monitoring.[30] We would therefore expect a greater proportion of earlier stage firms to be intra-provincial investments.

Investee Capital Requirements: For reasons that are similar to stage of development, we expect smaller investments to be associated with more frequent intra-provincial investment.

Entrepreneurial Firm Industry: High tech firms present greater informational problems for investors, and therefore they require more intensive screening and monitoring,[31] and are more likely to be intra-provincial investments.

Privately Held versus Publicly Traded Investees: Publicly traded companies face a number of reporting requirements, and therefore are much easier to value and monitor than privately held companies. We expect a greater proportion of publicly traded companies to have investors from other provinces than privately held companies.

Type of Investor: As discussed in subsection 3(b), we expect government funds and LSVCCs to more frequently invest in entrepreneurial firms located in the same province. A priori, there is no reason to expect differences between limited partnerships, corporate funds and institutional investors.

Number of Provinces in which the Investor Has Offices: On the one hand, investors with offices in more than 1 province are typically more established with greater capital under management, and therefore we could postulate that such investors will be more sophisticated and able to incur extra risks of inter-provincial investment. On the other hand, investors with offices in more than 1 province are less likely to have a need to invest outside their provinces of residence, for the simple reason that their geographic coverage is broader (some investors have offices in as many as 6 of the 10 provinces). In sections 4 and 5 we explain how we record the office of location of investors with offices in more than 1 province. As well, it is noteworthy that only 3347 of the 13,729 transactions were derived from firms that had offices in more than one province.

Province-Specific Factors: Smaller provinces with fewer investors (such as the Maritime Provinces: Newfoundland, New Brunswick, Nova Scotia and Prince Edward Island) are likely to have more investors from other provinces. Alberta and Newfoundland investees (the two

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30 Gompers (1995); Gompers and Lerner, (1999).

31 Gompers (1995); Gompers and Lerner (1999).

provinces without LSVCCs, as discussed in subsection 3.2) are more likely to have investors from other provinces. Quebec, as a French-speaking civil law province, likely has fewer non-resident investors.

Year of Investment: Inter-provincial investment activity is expected to increase over time as investors become more sophisticated, and information sharing and strategic networks develop over time. There could be an increasing role of information technology in expanding the geographic reach of venture capital and other forms of private equity; that is, the meaning of "geographic proximity" could be changing that would lead one to expect the importance of inter-provincial activity to continue to grow. Inter-provincial investment may also be expected to be greater in the bubble years of 1999 and 2000, as there was a surplus of capital chasing fewer deals.[32]

Transaction-Specific Factors: The type of security (common equity, preferred equity, convertible preferred equity, debt, convertible debt, warrants, debt and common equity, debt and preferred equity, and other combinations of securities), staging, and syndication are expected to be correlated with the likelihood of inter-provincial investment, but not expected to be determinants of inter-provincial investment (i.e., the causal connection is ambiguous). Syndicated investments are more likely to be inter-provincial as syndication facilitates due diligence, risk sharing and monitoring.[33] Staging frequency is related to monitoring intensity, and more frequent staging is therefore more likely to be correlated with intra-provincial investments. Securities that provide priority over the entrepreneur in bankruptcy (debt and preferred equity) are more likely to be correlated with the inter-provincial investments.[34]

4. Data

The data used in this study are from Macdonald & Associates Limited. Macdonald & Associates has built the most comprehensive database on venture capital and private equity activity in Canada. We consider 13729 investments over the period 1991 (1st quarter) – 2003 (1st quarter). Transactions are from numerous different types of investors: corporate, institutional, government, private (typically limited partnerships), labour-sponsored venture capital corporations (LSVCCs), and “other” types (investors with

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32 Gompers and Lerner (2000).

33 Lerner (1994), Lockett and Wright (1999, 2001), Manigart *et al.* (2002b), Wright and Lockett (2003), Bruining *et al.* (2004).

34 If sophistication is related to the frequency of use of convertibles, and to the frequency of inter-provincial investments, then we would of course expect convertible securities and inter-provincial investments to be correlated. See Bascha and Walz (2001a) and DeBettinges (2003) for a theory, and Landström *et al.* (1998), Bascha and Walz (2001b), Manigart *et al.* (2002a), and Cumming (2004) for empirical tests of this proposition.

an interest in specific private equity deals, but without a permanent market presence). The types of investee firms in the database are also broad in scope: various stages of development (start-up, expansion, buyout, turnaround and "other" not specifically identified), industries (life-sciences, other high tech, and traditional non-high tech), and whether the investee firm is privately held or publicly traded on a stock exchange. A wide variety of securities appear in the data (common equity, preferred equity, convertible preferred equity, debt, convertible debt, warrants, mixes of debt and common equity, mixes of preferred equity and common equity, and other combinations) and deal types (staging, syndication, and amounts invested ranging from less than $10,000 to more than $100,000,000).

A more extensive exhaustive summary for all types of investors, entrepreneurs, years of investment, amounts of investment, and other specifics of the transaction, etc., is available upon request.

A snapshot of the complete dataset for all 13,729 transactions is provided in Figure 5. Figure 5 shows a majority of investment activity is intra-provincial. For all types of investors and entrepreneurial firms, in terms of the numbers of investments (13,729 transactions), 84.42% of investments involved an investor and entrepreneur that resided in the same province. In terms of the total value of these transactions ($20,193,896,909 in 1997 dollars), 61.15% of the investment value was intra-provincial. The investee firms in three provinces (Alberta, Newfoundland, and Prince Edward Island) received capital from non-resident investors in a majority of the investments.

Table 1 provides a detailed summary of the data. The proportions of intra-provincial investments are explicitly presented for a number of different investor, investee, and transaction-specific characteristics. Univariate comparison tests are also provided. The statistically significant test statistics indicate the following (please refer to Table 1 for details):

- Inter-provincial investing (in which the entrepreneur and investor are not in the same province) is more likely in 1999 – 2003 relative to 1991 – 1998 (Tests #11 – 13), syndicated investments (Test #14), preferred equity and convertible preferred equity investments (Tests #26 and 27), and entrepreneurs resident in British Columbia, Alberta, Saskatchewan, Newfoundland, New Brunswick, Nova Scotia, and Prince Edward Island (while the frequency of inter-provincial investments in Manitoba is similar to the national average) (Tests # 35 – 52).

- Intra-provincial investing (in which the entrepreneur and investor are in the same province) is more likely for turnaround stage firms (Test #3), firms in traditional industries (as opposed to life science and other types of high tech firms) (Test #6), institutional, government and labour-sponsored investors (Tests # 8 – 10), more likely for first-round investments as opposed to

follow-on investments (Tests # 15 – 17), smaller deal sizes (Tests #18 – 25), debt investments (Tests #28, 31), and for entrepreneurs resident in Ontario and Quebec (Tests #35 – 52).

Table 2 presents a matrix of correlation coefficients. The reported correlation coefficients for the first column between the proportion of intra-provincial investment and the other variables are consistent with the conclusions drawn from the comparison of proportion tests in Table 1. The variables in Table 2 are used in the next section to further explore the robustness of the univariate test statistics by analyzing the determinants of inter- versus intra-provincial investment in a multivariate context. The relatively small correlation coefficients across the variables indicate that we do not have a concern with collinearity problems amongst the considered explanatory variables (however, other explanatory variables are not used as the correlations were much higher, as discussed in the next section).

5. Multivariate Logit Tests

Our interest in this section is in explaining the presence of inter- versus intra-provincial investment decisions. Tables 3 – 7 present binomial logit regressions of the likelihood that an investor and entrepreneur reside in the same province. Table 3 considers all provinces together. Tables 4, 5, 6 and 7 consider the subsamples for entrepreneurs resident in Ontario, Quebec, British Columbia and Alberta, respectively.[35] In each regression, the dependent variable is equal to one if the entrepreneur and investor reside in the same province. The independent variables are as follows:

- A dummy variable equal to 1 if the investor was an actual government fund or a LSVCC and 0 for private limited partnerships, institutional investors, and corporate investors. Separate variables for each investor type were not used to avoid collinearity bias.

- A dummy variable equal to 1 if the investee was a publicly traded firm and 0 for privately held firms.

- A dummy variable equal to 1 for buyout stage investee firms and 0 otherwise, and a dummy variable equal to 1 for turnaround stage investee firms and 0 otherwise. Separate dummies for start-up and expansion stage firms were suppressed to avoid problems arising from collinearity.

- A dummy variable equal to 1 for high tech investees (either life-science or other high tech) and 0 for firms in traditional industries (e.g., manufacturing, etc). Dummies for different industries were not used to avoid collinearity problems.

- The log of the total deal size (including all syndicated investment). Consistent with a large prior literature in financial economics, this variable is expressed in logs as the effect of larger sizes becomes smaller as size becomes larger. We use total deal size, and not the amount invested by a particular investor, as entrepreneurial firm capital requirements are exogenously determined by

[35] Subsamples from other provinces were not considered due to a comparative dearth of data from those provinces.

the financial needs of the entrepreneur. (As discussed below, certain other variables are not exogenous to the likelihood of inter-provincial investment activity.)

- Dummy variables for entrepreneurs resident in different provinces. Dummy variables for British Columbia and Newfoundland were suppressed in order to avoid perfect collinearity.

- Dummy variables for different investment years. A dummy variable for 1991 was suppressed to avoid perfect collinearity.

Regarding investors with offices in more than one province, note that we identify the province of domicile for the empirical analyses as follows. Our primary criterion was that if the investor is domiciled in the same province as that of the entrepreneurial firm, then that province was naturally used as the investor's domicile. The remaining criteria considered all other cases for which the investor and entrepreneur were not domiciled in the same province. For these cases, we developed a ranking of the likelihood of the investor's primary province of residence based on the premise that venture funds with offices in Ontario tend to have their head office in their Ontario, and their satellite offices elsewhere. This is consistent with the organization of most funds in Canada,[36] and the greater number of transactions in Ontario. For venture funds with offices in multiple jurisdictions other than Ontario, we then used Quebec as the primary office (if there was an office in Quebec, but not Ontario), then British Columbia (if there was an office in British Columbia, but not Ontario or Quebec), then Alberta (etc.), Saskatchewan, Manitoba, Nova Scotia, New Brunswick, and Prince Edward Island (none of the venture funds in the data had an office in Newfoundland). This categorization of the primary offices will, to the extent that funds with an office in Ontario do not use Toronto as the primary office, lead to an overstatement in the data of the extent to which Ontario funds are more inclined to invest across provinces. However, the categorization of the primary office location does not materially impact any of the tests of inter- versus intra-provincial investment. As mentioned, if one of the investor's offices is in the same province as that of the entrepreneur, then that office is used and the investment is treated as an intra-provincial investment. As well, it is noteworthy that only 3347 of the 13,729 transactions were derived from firms that had offices in more than one province.

In each table we present a number of models with different right-hand-side variables to illustrate the robustness of the results. We also considered many alternative specifications (available upon request); however, the results were not materially different. Note that the right-hand-side variables do not include "choice" variables, such as staging, syndication and capital structure. Such variables are not exogenous to the decision to invest in a firm resident in a different province (or not). In section 4, we reported comparison of proportion tests to ascertain correlations between certain choice variables and

[36] See http://www.cvca.ca/full_members/index.html.

inter- versus intra-provincial investment, but such choice variables are not appropriate for the multivariate tests which have a causal structure.

Table 3 presents the regressions for all types of investors and investees, for all years, and for all provinces (the complete sample of 13,729 transactions). The variable being explained in the Table is the likelihood that an entrepreneurial firm and investor reside in the same province. Five models are presented in Table 3 to explicitly show the robustness of the results to different sets of explanatory variables. Model 5 presents the complete set of right-hand-side variables. As the inclusion of different explanatory variables does not materially affect the results, we focus the discussion on model 5. For model 5 we present the logit coefficient estimates, t-statistics to show statistical significance, and the marginal effects to show economic significance. The marginal effects show the increase (for positive numbers) in the probability of an intra-provincial investment for each given right-hand-side variable.

Model 5 in Table 3 indicates that government funds and LSVCCs are 4% more likely to carry out intra-provincial investments relative to inter-provincial investments, as expected (see our discussion in section 3(c)), and this result is significant at the 1% level of significance.

Publicly traded companies are 1% more likely to be inter-provincial investments. While this result is statistically significant, we might have expected greater economic significance. A greater amount of information is typically known about publicly traded companies. But referring back to Test #4 in Table 1, recall that 85% of private investments were intra-provincial, and 83% of investments in publicly traded companies were intra-provincial. The comparison test was not statistically significant. In the more rigorous multivariate context that simultaneously controls for many factors, we do find a statistically significant difference between privately held and publicly traded securities, but again, the magnitude of the difference is not large.[37] Note as well that the correlation between deal size (in logs) and the variable for public companies is only 0.07 (see Table 2). The statistical significance of the estimates does not depend on the simultaneous inclusion of the public company and deal size variables in the same model (see the alternative specifications in Table 2). The economic significance on the public company variable is about twice as large in models 1 – 3 relative to models 4 and 5, but the difference is due to the inclusion of the variables for the provinces and not the deal size variable (see model 3 versus model 4).

[37] Note that our evidence which compares private versus publicly traded securities in this paper is based on a relatively small number of public equity investments, since private equity funds typically do not invest in publicly listed securities.

A somewhat unexpected finding in Table 3 is that turnaround investments are 8% more likely to be intra-provincial investments (relative to earlier start-up and expansion stage investments). In section 3 we postulated that companies in earlier stages of development would more likely be intra-provincial investments. The evidence is suggestive that the risks associated with turnaround transactions are greater than other types of transactions.[38]

Equally surprising is the finding that high tech companies are more likely to be inter-provincial investments than companies in non-tech industries. Problems of informational asymmetries and agency costs are widely regarded to be more pronounced among high tech firms. We would therefore expect investors and entrepreneurs more often to be domiciled in the same province. One explanation for this result is that investors that do actually finance high tech firms have superior information networks (e.g., strategic alliances with other investors or consultants that can facilitate the investment) to lower the agency costs and information asymmetries associated with investment in high tech firms.[39]

The data indicate that entrepreneurial firms that require more capital are more likely to receive that capital from an investor domiciled in a different province. An extra $1,000,000 in capital increases the probability of inter-provincial investment by 6%.[40] Entrepreneurial firm capital requirements are therefore a very economically and statistically significant determinant of the probability of inter- versus intra-provincial investment.

The data also indicate that the number of provinces in which the investor has offices is positively related to the probability that the investor carries out intra-provincial investments (with each extra office, there is a 3% reduction in the probability of inter-provincial investment). As mentioned, some of the investors in the dataset had offices in as many as 6 of the 10 provinces. The need to consider entrepreneurs domiciled in other provinces naturally diminishes when geographic scope of office location is more complete.

All of the variables that capture province-specific effects in the analysis of the complete set of data are statistically significant. It is noteworthy that the Alberta and Maritime variables are negative and significant (indicating inter-provincial investments are more likely for entrepreneurs in those provinces relative to the others), whereas the variables for the other provinces are positive and significant

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[38] The buyout coefficient is also significant in Model 3; however, that result is not robust to the inclusion of different right-hand-side variables.

[39] Agency problems in entrepreneurial finance are widely regarded to be more pronounced for high tech firms (see, e.g., Gompers, 1995; Gompers and Lerner, 1999, 2001).

[40] The calculation is Log($1,000)*(-2%). Note that the deal size values in the data are expressed in thousands of dollars, so that $1,000 in the calculation is actually $1,000,0000.

(indicating intra-provincial investments are more likely for entrepreneurs in those provinces relative to the others). These results are consistent with the legal and institutional differences across the provinces discussed in subsection 3(b).

Finally, note that the year of investment matters. Controlling for the above mentioned factors, in 2002, 2001 and 1993 there was relatively more frequent intra-provincial investment. These were years of "bust" periods in private equity investment. A natural interpretation is that intra-provincial investment activity increases when economic activity is in decline. At this point in time with the available data, we cannot conclude that the role of information technology is expanding the geographic reach of venture capital and other forms of private equity.

Tables 4, 5, 6 and 7 present regressions similar to those reported in Table 3 for the subset of Ontario, Quebec, British Columbia and Alberta entrepreneurial firms, respectively. We briefly discuss the main differences when one examines the results of each province independently.

The first main difference is that fewer coefficients are significant in the Ontario subsample (Table 4). The likely reason is that a majority of investors have offices in Ontario, and that the need to raise outside capital is significantly diminished for Ontario entrepreneurial firms.

The second main difference is in Quebec results. The Quebec regressions (Table 5) show very similar results to the full sample of all provinces (Table 3), but with one exception. The number of provinces in which the investor has offices is positive and significant in Table 3, but negative and significant in Table 5. Referring back to Table 2, note that the correlation between the number of offices and the variable for Quebec was -0.29, but positive in the other provinces (except Manitoba). Therefore, the data indicate Quebec investors are much more regionally isolated (less likely to have offices in multiple jurisdictions), as might be expected (for reasons discussed above in section 3).

The final main difference is in the year effects in Alberta versus Quebec. Inter-provincial investing has been increasing over time in Alberta, while intra-provincial investing has been increasing over time in Quebec. The degree to which year effects matter to cross-province investment activity therefore differs by province.

As a result of a comparative dearth of data from the other provinces, we only present regression analyses on the subsamples of data for Ontario, Quebec, British Columbia and Alberta entrepreneurial firms. It is possible to run regressions for some of the other provinces (or combinations of the other

provinces) but only with a subset of the explanatory variables used in the reported tables. Alternative specifications are available upon request.

6. The Scope of the Data and Generalizations that can be drawn from the Empirical Analysis

There are certain limitations associated with the analysis of private equity investments carried out in this paper. First, the coverage of the data is obviously not 100% of all transactions in Canada. The CVCA covers industries traditionally targeted by venture capital and private equity funds. The CVCA covers the following high tech industries: biotechnology, medical/health related, communications, computer related, Internet related, electronics and "other" technology. The CVCA also covers the following traditional industries: consumer related, manufacturing and "miscellaneous".[41] Certain industries like mining and oil and gas are not covered in the database, and to our knowledge, systematic data on intra- versus inter-provincial investment in these and other industries do not exist in Canada.

Second, we stress that the data are focused on private equity (limited partnerships, corporate venture funds, LSVCCs, certain institutional investors that directly invest in entrepreneurial firms,[42] government venture programs, and "other" types of investors with an interest in specific private equity deals, but without a permanent market presence.[43] The data do not comprise investments from mutual funds, hedge funds, banks and any other individual or institutional investor that does not fit within the scope of investors covered by Macdonald & Associates Limited. Based on the empirical tests carried out in this paper, the data are consistent with the view that there is significantly less home bias for mutual funds, hedge funds, and other investors of publicly traded companies.

Third, we do not know exact intra-province location and rural versus urban investments in Canada. Ideally, we would like to know the exact location. Nevertheless, we believe the intra- versus inter-provincial test is the most appropriate one, as the institutional barriers to inter-provincial investment likely outweigh a measure of geography based on miles.

Fourth, the data cover investments and not sales of investments through initial public offerings (IPOs) and acquisitions, etc. (see Cumming and MacIntosh, 2003a, b). Macdonald & Associates Limited believe (based on anecdotal evidence) that sale transactions more often involve sales to new investors

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41 See http://www.cvca.ca/statistical_review/table_3x2002.html.

42 The identity of any given investor is not specifically revealed in the raw data (whereby each transaction cam be observed) from Macdonald and Associates, Ltd., for reasons of confidentiality. A list of investors that are members of the Canadian Venture Capital Association is available at http://www.cvca.ca/full_members/index.html.

43 Again, specific identities are not revealed for reasons indicated, *ibid.*

resident in different provinces (or to foreign investors). Systematic data on sales that comprise information on the location of the investor and entrepreneur are in the process of being recorded by Macdonald & Associates, and work on that related topic will begin when those data become available.[44] Nevertheless, despite these limitations, the breadth of transactions in terms of the heterogeneity of investors, entrepreneurs and types of transactions does enable us to extrapolate certain generalizations beyond the realm of the private equity market. For example, our evidence herein that larger transactions are more often inter-provincial is very consistent with the anecdotal evidence that sale transactions are more often inter-provincial (and/or involve foreign investors). For the most part, however, the results in the paper should be considered to apply to the context of private equity investment only, and not private equity exits.

Despite some limitations, Macdonald & Associates Limited's database is the best source of information for private equity investments in Canada, and a more complete database than comparable private equity databases from other countries, including Europe and the United States. As well, to our knowledge, no other database of any kind (for either publicly traded and/or privately held companies) matches the geographic location of Canadian investors and investees. The very high quality of the Macdonald & Associates Limited database enables a unique and significant amount of information to be gleaned about intra- versus inter-provincial investment activity in Canada. Transactions are from numerous different types of investors: corporate, institutional, government, private (typically limited partnerships), labour-sponsored venture capital corporations (LSVCCs), and "other" types of investors with an interest in specific private equity deals, but without a permanent market presence. The types of investee firms in the database are also broad in scope: various stages of development (start-up, expansion, buyout, turnaround) industries (life-sciences, other high tech, and traditional non-high tech), and whether the investee firm is privately held or publicly traded on a stock exchange. A wide variety of securities appear in the data (common equity, preferred equity, convertible preferred equity, debt, convertible debt, warrants, mixes of debt and common equity, mixes of preferred equity and common equity, and other combinations) and deal types (staging, syndication, and amounts invested ranging from less than $10,000 to more than $100,000,000).

7. An Interpretation of the Evidence in View of Canadian Securities Regulation

The frequency of inter- versus extra-provincial investment is important for the role of a national versus provincial securities regulatory system. It is important to consider the efficient regulation of venture capital markets (see, e.g., theoretical work on topic by Keuschnigg, 2003, 2004; Keuschnigg and

[44] The exact date when these data will become available is unknown.

Nielsen, 2001, 2003a,b,c, 2004). Canada currently makes use of a different securities regulator in each provincial jurisdiction, unlike the U.S. and unlike Australia (although Australia did have a provincial based system until 1991). There are two different ways of interpreting the data from the perspective of the debate on provincial versus federal securities regulation.

On the one hand, one may interpret the evidence in favor of regional securities regulators and regulations. A significant majority of private equity investments are carried out by investors and investees resident in the same province, and therefore local regulations can be tailored to meet the needs of this local market. In the U.S., for example, despite the federal Securities and Exchange Commission, there is a continuing state role in regulating intra-state and exempt offerings.[45]

On the other hand, one may interpret the evidence in favor of a national regulator. "Home-bias" is present in U.S. venture capital markets, as well as among U.S. mutual funds. Generally, it is well documented that there is a strong informational advantage to investing in geographically proximate companies, and both venture capitalists and mutual funds in the U.S. tend to earn higher returns when a greater proportion of their portfolio of investees was geographically proximate. The existence of a home bias is not a sufficient condition to conclude that securities markets should be regulated differently in different regions and/or that the identity of the regulator should be different for different regions. For example, the U.S. does exhibit a significant degree of home bias in private equity markets, but the U.S. also has a uniform securities act and a single federal regulatory body (albeit, there is a continuing state role in regulating intra-state and exempt offerings, as mentioned immediately above). Differences in regulations across provinces may in fact exacerbate the degree of home bias (as discussed above in subsection 3(b)). One interpretation of the different regression results across Tables 4 - 7 is that different province-specific regulations give rise to differences in the likelihood of inter- versus intra-provincial investment in different provinces.

It is possible to use the regression results to identify types of transactions for which harmonized securities regulations would be more advantageous. It is more important for transactions for which inter-provincial investments are more likely to be regulated in a similar way across provinces. We have empirically demonstrated significant differences in the likelihood of intra- versus inter-provincial investing depending on numerous firm- and transaction-specific characteristics. We also documented differences in the likelihood of intra- versus inter-provincial investing over time, as well as differences depending on the province. Inter-provincial investing (in which the entrepreneur and investor are not in the same province) is more likely when the investee firm is publicly traded, in 1999 – 2003 relative to

[45] See, for example, Seligman (2003) for a description of these state regulations.

1991 – 1998, in syndicated investments, in preferred equity and convertible preferred equity investments, and in investments where the entrepreneur is resident in British Columbia, Alberta, Saskatchewan, Newfoundland, New Brunswick, Nova Scotia, or Prince Edward Island (while the frequency of inter-provincial investments in Manitoba is similar to the national average). Intra-provincial investing (in which the entrepreneur and investor are in the same province) is more likely for turnaround stage firms, firms in traditional industries (as opposed to life science and other types of high tech firms), government and labour-sponsored investors, first-round investments as opposed to follow-on investments, smaller deal sizes, debt investments, and for entrepreneurs resident in Ontario and Quebec. The exact change in the likelihood of intra- versus inter-provincial investing was explicitly documented above in sections 4 and 5, and in Tables 1 – 7.

8. Conclusion

This paper presented evidence on the frequency with which investors and entrepreneurs are located in different provinces. For all types of investors and entrepreneurial firms, in terms of the numbers of investments (13,729 transactions), 84.42% of investments involved an investor and entrepreneur that resided in the same province. In terms of the total value of these transactions ($20,193,896,909 in 1997 dollars), 61.15% of the investment value was intra-provincial.

This paper also provided univariate and multivariate tests that showed inter-provincial investing (in which the entrepreneur and investor are not in the same province) is more likely when the investee firm is publicly traded, more likely in 1999 – 2003 relative to 1991 – 1998, syndicated investments, preferred equity and convertible preferred equity investments, and entrepreneurs resident in British Columbia, Alberta, Saskatchewan, Newfoundland, New Brunswick, Nova Scotia, and Prince Edward Island (while the frequency of inter-provincial investments in Manitoba is similar to the national average). Intra-provincial investing (in which the entrepreneur and investor are in the same province) is more likely for turnaround stage firms, firms in traditional industries (as opposed to life science and other types of high tech firms), government and labour-sponsored investors, more likely for first-round investments as opposed to follow-on investments, smaller deal sizes, debt investments, and for entrepreneurs resident in Ontario and Quebec. The economic and statistical significance of each of these effects was explicitly assessed in the presentation of the results in the body of this paper.

Unlike the U.S., Canada has a different securities regulator and set of similar but distinct securities regulations in each province. It is important to consider the efficient regulation of venture capital markets (see, e.g., theoretical work on topic by (see, e.g., theoretical work on topic by Keuschnigg,

2003, 2004; Keuschnigg and Nielsen, 2001, 2003a,b,c, 2004). We interpreted the results in this paper from the perspective of the benefits and drawbacks for federal versus provincial securities regulation, with reference to available comparative evidence from U.S. studies.

References

Amit, R., J. Brander and C. Zott, 1998, Why do venture capital firms exist? Theory and Canadian evidence, Journal of Business Venturing 13, 441-466.

Barry, C.B., C. J. Muscarella, J. W. Peavy III, and M.R. Vetsuypens, 1990. The role of venture capitalists in the creation of public companies: evidence from the going public process. Journal of Financial Economics 27, 447-471.

Bascha, A., and U. Walz, 2001a. Convertible securities and optimal exit decisions in venture capital finance. Journal of Corporate Finance 7, 285-306.

Bascha, A., and U. Walz, 2001b. Financing practices in the German venture capital industry: an empirical assessment. Working Paper, University of Frankfurt.

Black, B.S., and R.J. Gilson, 1998. Venture capital and the structure of capital markets: banks versus stock markets. Journal of Financial Economics 47, 243-277.

Brander, J.A., Amit, R., and Antweiler, W. 2002. Venture capital syndication: improved venture selection versus the value-added hypothesis. Journal of Economics and Management Strategy 11, 423-452.

Bruining, H., Verwaal, M. Wright, A. Lockett, S. Manigart, 2004. Firm size effects on syndication participation in European venture capital syndicates. Working Paper, Erasmus University Rotterdam.

Coval, J.D., and T. J. Moskowitz, 2003a. The geography of investment: informed trading and asset prices. Journal of Political Economy, forthcoming.

Coval, J.D., and T. J. Moskowitz, 2003b. Home bias at home: local equity preference in domestic portfolios. Working paper, University of Michigan Business School and University of Chicago Graduate School of Business.

Cumming, D.J., 2003. The determinants of venture capital portfolio size: empirical evidence. Journal of Business, forthcoming.

Cumming, D.J., 2004. Agency costs, institutions, learning and taxation in venture capital contracting. Journal of Business Venturing, forthcoming.

Cumming, D.J. and J. G. MacIntosh, 2000. The role of interjurisdictional competition in shaping Canadian corporate law. International Review of Law and Economics 20, 141-186.

Cumming, D.J. and J. G. MacIntosh, 2002. The rationales underlying reincorporation and implications for Canadian corporations. International Review of Law and Economics 22, 277-330.

Cumming, D.J. and J. G. MacIntosh, 2003a. Venture capital exits in Canada and the United States. University of Toronto Law Journal 53, 101-200.

Cumming, D.J., and J. G. MacIntosh, 2003b. A cross-country comparison of full and partial venture capital exits. Journal of Banking and Finance, 27, 511-548.

Cumming, D.J., and J. G. MacIntosh, 2003c. Crowding out private equity: Canadian evidence. Working Paper, University of Alberta and University of Toronto. Posted on www.ssrn.com.

De Bettignies, J-E., 2003. Financing the entrepreneurial venture. Working paper, University of British Columbia.

De Clercq, D., and H.J. Sapienza, 2001. The creation of relational rents in venture capitalist-entrepreneur dyads, Venture Capital: An International Journal of Entrepreneurial Finance 3(2), 107-127.

Forbes, D.P., P.S. Borchert, M.E. Zellmer-Bruhn, and H.J. Sapienza, 2004. Entrepreneurial team formation: an exploration of new member addition. Working Paper, University of Minnesota Carlson School of Management.

Gillen, M., 1998. Securities Regulation in Canada, 2nd ed. Toronto: Carswell.

Gompers, P.A., 1995. Optimal investment, monitoring, and the staging of venture capital. Journal of Finance 50, 1461-1489.

Gompers, P.A., 1996. Grandstanding in the venture capital industry. Journal of Financial Economics 42, 133-156.

Gompers, P.A., and J. Lerner, 1999. The Venture Capital Cycle. Cambridge: MIT Press.

Gompers, P.A., and J. Lerner, 2000. Money chasing deals?: The impact of fund inflows on the valuation of private equity investments. Journal of Financial Economics 55, 281-325.

Gompers, P.A., and J. Lerner, 2001. The Money of Invention: How Venture Capital Creates New Wealth. Cambridge: Harvard Business School Press.

Gorman, M., and W. Sahlman, 1989. What do venture capitalists do? Journal of Business Venturing 4, 231-248.

Halpern, P. (1997), Financing Growth in Canada, ed. University of Calgary Press.

Harris, A.D., 2002. A symposium on Canadian securities regulation: harmonization or nationalization? White Paper, Capital Markets Institute, University of Toronto.

Kanniainen, V., and C. Keuschnigg, 2003a. The optimal portfolio of start-up firms in venture capital finance, Journal of Corporate Finance 9, 521-534.

Kanniainen, V., and C. Keuschnigg, 2003b. Start-up investment with scarce venture capital support. Journal of Banking and Finance, forthcoming.

Keuschnigg, C., 2003. Public policy and venture capital backed innovation. Working Paper No. 2003-09, University of St. Gallen.

Keuschnigg, C., 2004. Taxation of a venture capitalist with a portfolio of firms. Oxford Economic Papers 56, 285 – 306.

Keuschnigg, C., and S.B. Nielsen, 2001. Public policy for venture capital. International Tax and Public Finance 8, 557-572.

Keuschnigg, C., and S.B. Nielsen, 2003a. Tax policy, venture capital and entrepreneurship. Journal of Public Economics 87, 175-203.

Keuschnigg, C., and S.B. Nielsen, 2003b. Progressive taxation, moral hazard, and entrepreneurship. Journal of Public Economic Theory, forthcoming.

Keuschnigg, C., and S.B. Nielsen, 2003c. Taxes and venture capital support. European Finance Review, forthcoming.

Keuschnigg, C., and S.B. Nielsen, 2004. Start-ups, venture capitalists, and the capital gains tax. Journal of Public Economics 88, 1011-1042.

Landström, H., S. Manigart, C. Mason, and H. Sapienza, 1998. Contracts between entrepreneurs and investors: terms and negotiation process. In P.D. Reynolds, W.D. Bygrave, N.M. Carter, S. Manigart, C.M. Mason, G.D. Meyer and K.G. Shaver (editors). Frontiers of Entrepreneurship Research 1998: 571-585. Welleslay, MA: Babson College.

Lockett, A., and M. Wright, 1999. The syndication of private equity: evidence from the U.K. Venture Capital: International Journal of Entrepreneurial Finance 1, 303 - 324.

Lockett, A.; M. Wright, 2001. The syndication of venture capital investments, Omega: The International Journal of Management Science 29, 375-390.

Lerner, J., 1994. The syndication of venture capital investments. Financial Management 23, 16-27.

Lerner, J., 1995. Venture capitalists and the oversight of private firms. Journal of Finance 50, 301-318.

Macdonald, M., 1992. Venture Capital in Canada: A Guide and Sources, Toronto: Canadian Venture Capital Association.

MacIntosh J.G., 1994. Legal and Institutional Barriers to Financing Innovative Enterprise in Canada, Queen's University Discussion Paper, 94-10.

Manigart, S., H. Sapienza, and W. Vermeir, 1996. Venture capital governance and value-added in four countries. Journal of Business Venturing 11, 439-469.

Maginart, S., K, De Waele, M. Wright, K. Robbie, P. Desbrières, H. Sapienza, and A. Beekman, 2000. Venture capital, investment appraisal, and accounting information: a comparative study of the US, UK, France, Belgium and Holland, European Financial Management 6, 380-404.

Manigart, S., M. A. Korsgaard, R. Folger, H. Sapienza, and K. Baeyens, 2002a. The impact of trust on private equity contracts. Working Paper, Vlerick Leuven Gent Management School.

Manigart, S., A. Lockett, M. Meuleman, M. Wright, H. Landstrom, H. Bruining, P. Desbrieres, U. Hommel, 2002b. Why do European venture capital companies syndicate? Working Paper, Vlerick Leuven Gent Management School.

Manigart, S., K. DeWaele, M. Wright, K. Robbie, P. Desbrieres, H.J. Sapienza, and A. Beekman, 2002c. The determinants of the required returns in venture capital investments: a five-country study. Journal of Business Venturing 17, 291-312.

Osborne, D., and D. Sandler, 1998. A tax expenditure analysis of labour-sponsored venture capital corporations, Canadian Tax Journal 46, 499-574.

Sahlman, W.A., 1990. The structure and governance of venture capital organizations. Journal of Financial Economics 27, 473-521.

Sapienza, H., 1992. When do venture capitalists add value? Journal of Business Venturing 7, 9-27.

Sapienza, H., S. Manigart, and W. Vermeir, 1996. Venture capital governance and value-added in four countries. Journal of Business Venturing 11, 439-469.

Sapienza, H.S., D. De Cleacq, and W.R. Sandberg, 2004. Antecedents of international and domestic learning effort. Journal of Business Venturing, forthcoming.

Seligman, J., 2003. The United States federal-state model of securities regulation. Wise Persons Committee Research Study, Government of Canada.

Sorenson, O., and T. E. Stuart, 1999. Syndication networks and the spatial distribution of venture capital investments. American Journal of Sociology 106, 1546-1586.

Wright, M., R.E. Hoskisson, L.W. Busenitz and J. Dial, 2001. Finance and management buyouts: agency versus entrepreneurship perspectives. Venture Capital: An International Journal of Entrepreneurial Finance 3, 239-262.

Wright, M., and A. Lockett, 2003.. The structure and management of alliances: syndication in the venture capital industry. Journal of Management Studies 40, 2073-2102.

Figure 1. Venture Capital Under Management by Investor Type in Canada: 1992-2002

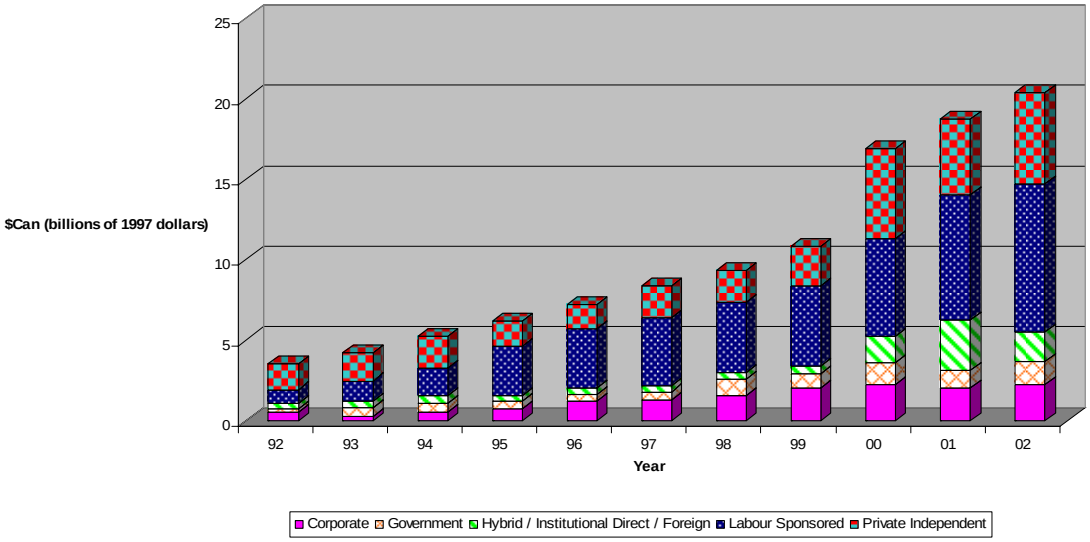

Figure 2a. Distribution of Venture Capital Finance in Canada, 1977-2002

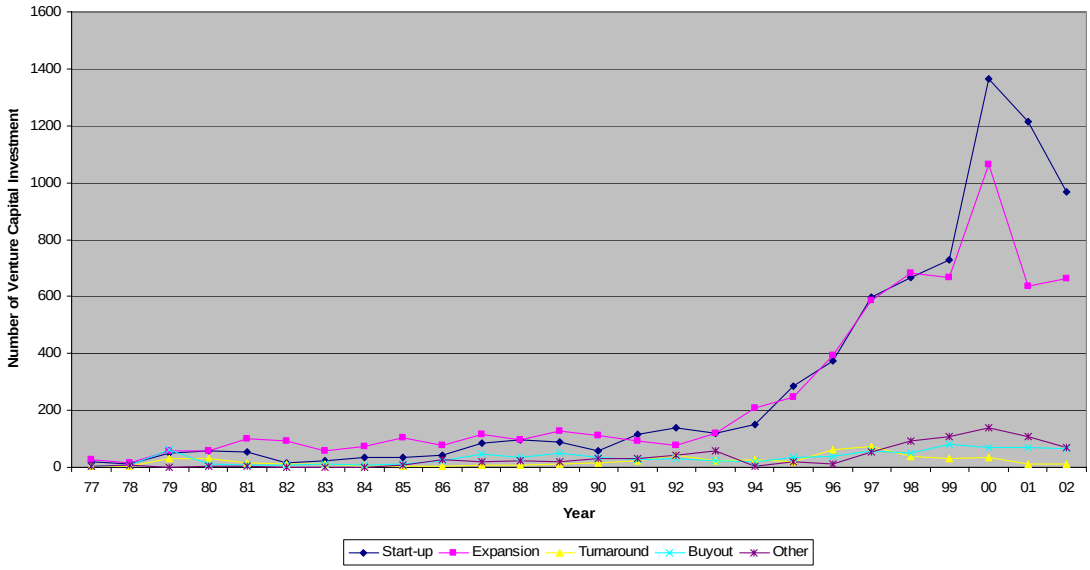

Figure 2b. Distribution of Venture Capital Finance in Canada, 1977-2002

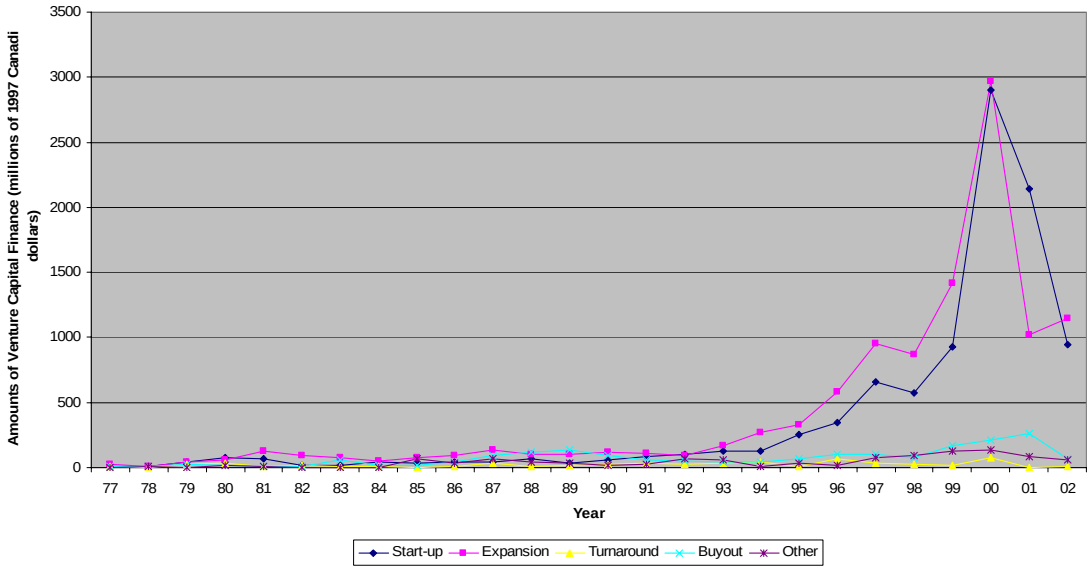

Figure 3a. Geographic Distribution of Venture Capital in Canada: 1977-2002

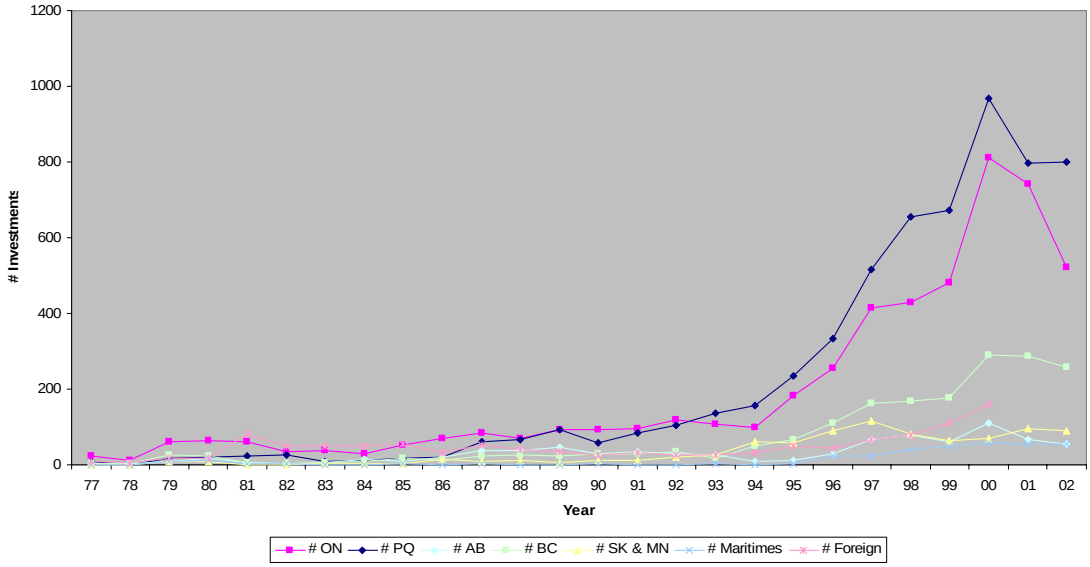

Figure 3b. Geographic Distribution of Venture Capital in Canada: 1977-2002

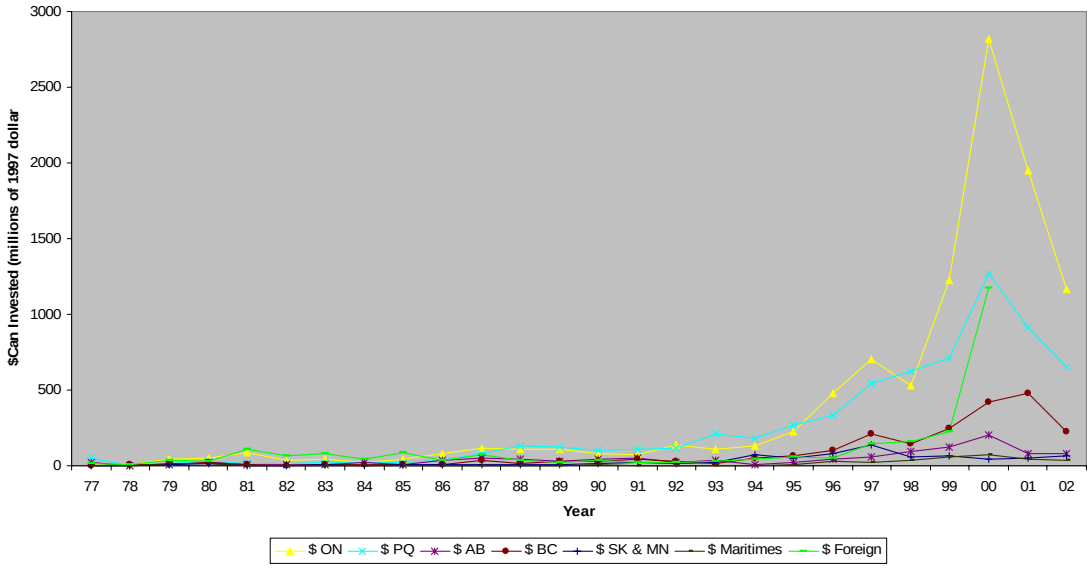

Figure 4a. Distribution of Venture Capital in Canada, 1985 - 2002

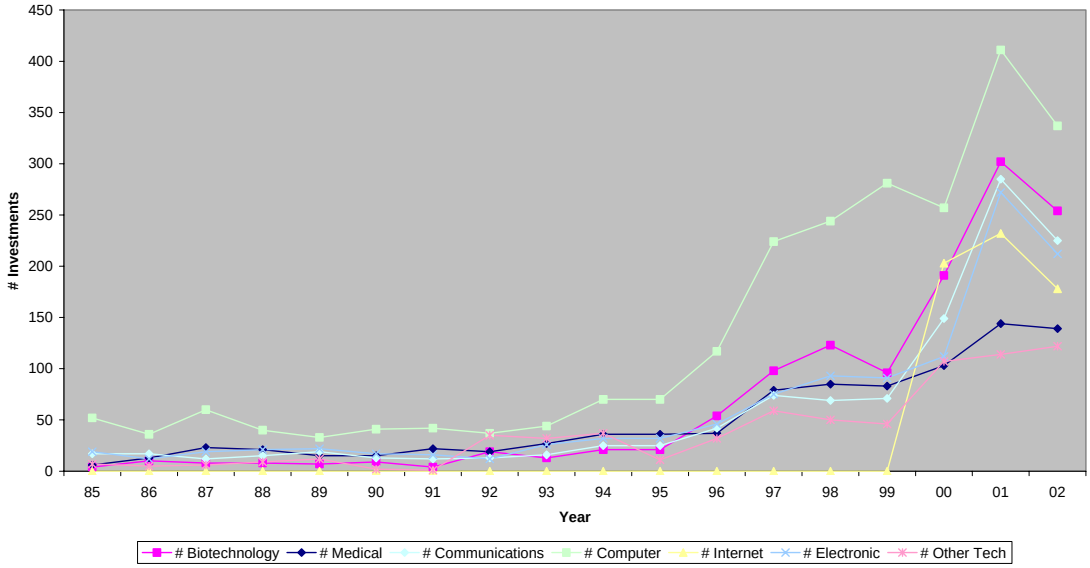

Figure 4b. Distribution of Venture Capital in Canada, 1985 - 2002

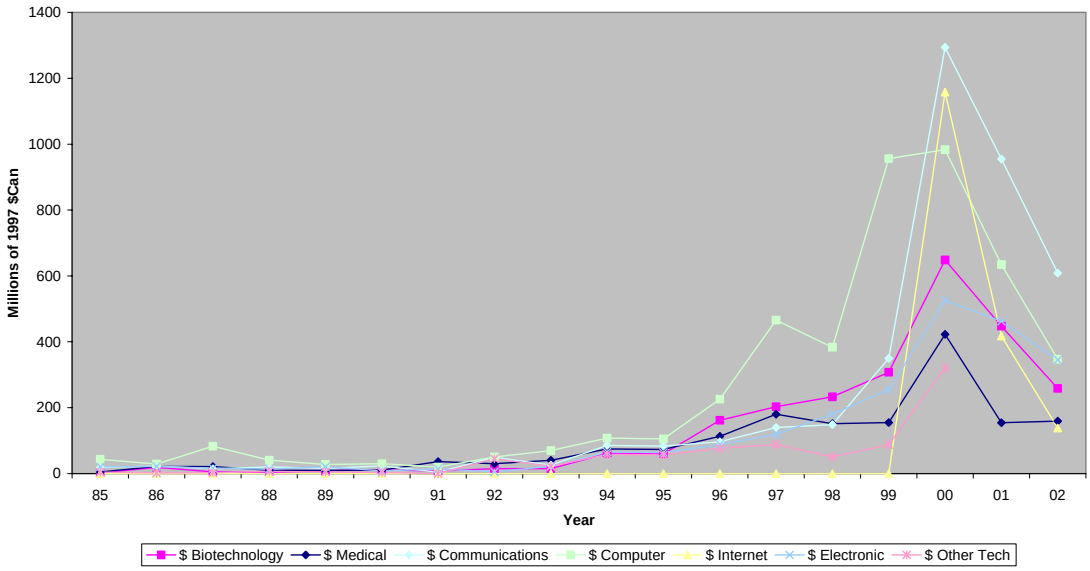

Figure 4c. Distribution of Venture Capital Finance in Canada, 1977 - 2002

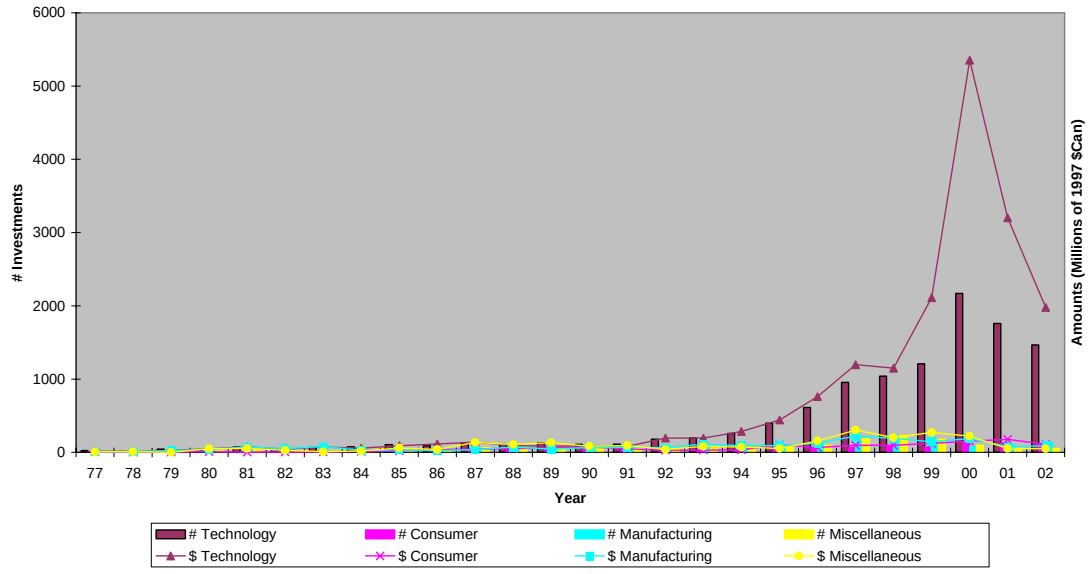

Figure 5. Location of All Investors and All Entrepreneurs

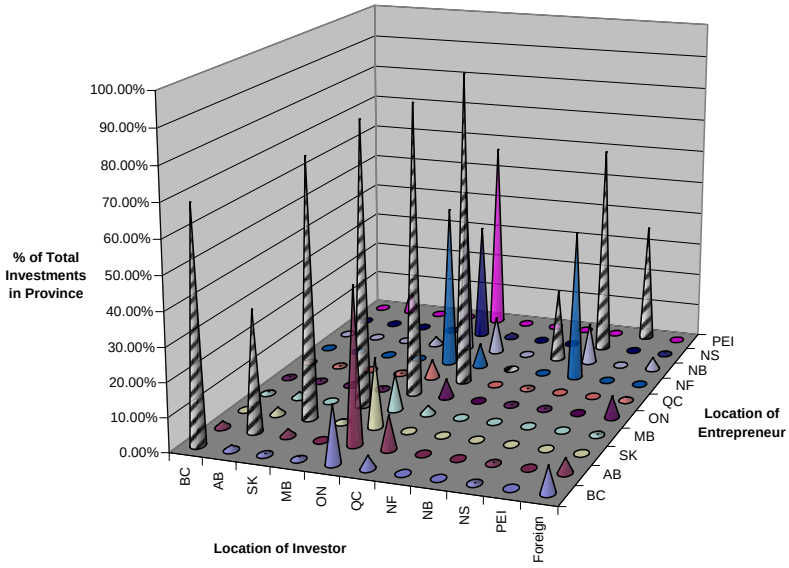

Table 1. Comparison of Proportions Tests for Proportions of Investments where Entrepreneurs and Investors are in the Same Province

This table reports comparisons of proportions tests of the number of times investments occurred in which investors entrepreneurs were in the same province as a proportion of the total number of financings for the listed characteristics of the venture capitalist, entrepreneur, and financing arrangement. A positive (negative) and significant number indicates that the top number is a greater (smaller) proportion of investors and entrepreneurs were in the same province. *, **, *** Significant at the 10%, 5%, and 1% levels, respectively.

	#	Proportion	Proportion Equal?		#	Proportion	Proportion Equal?
1. Seed Stage versus Expansion Stage				14. Syndication versus Non-Syndication			
Seed Stage	4967	0.83	-0.65	Syndication	5477	0.80	-13.15***
Expansion Stage	3944	0.84		Non-Syndication	4755	0.90	
2. Seed Stage versus Buyout Stage				15. Initial Investment Round 1 versus Staged Rounds 2-5			
Seed Stage	4967	0.83	-0.84	Round 1	3829	0.87	6.22***
Buyout Stage	410	0.85		Rounds 2-5	5264	0.83	
3. Seed Stage versus Turnaround Stage				16. Initial Investment Round 1 versus Staged Rounds 6-10			
Seed Stage	4967	0.83	-9.35***	Round 1	3829	0.87	4.58***
Turnaround Stage	654	0.97		Rounds 6-10	1036	0.82	
4. Privately Held versus Publicly Traded Entrepreneurs				17. Initial Investment Round 1 versus Staged Rounds 11-15			
Privately Held	8748	0.85	1.42	Round 1	3829	0.87	-0.17
Publicly Traded	1484	0.83		Rounds 11-15	103	0.88	
5. Life Sciences versus Other types of High-Tech				18. Amounts Invested <$100,000 versus $100,000 - $500,000			
Life Sciences	2082	0.81	-1.01	<$100,000	1119	0.82	-6.00***
High Tech	4544	0.82		$100,000 - $500,000	3782	0.89	
6. Life Sciences versus Traditional (non-High Tech)				19. Amounts Invested <$100,000 versus $500,000 - $1,000,000			
Life Sciences	2082	0.81	-8.28***	<$100,000	1119	0.82	-3.61***
Traditional	3606	0.89		$500,000 - $1,000,000	1916	0.87	
7. Limited Partnership VCs versus Corporate Investors				20. Amounts Invested <$100,000 versus $1,000,000 - $5,000,000			
Private Independent Limited Partnerships	2753	0.82	-1.18	<$100,000	1119	0.82	-0.10
Corporate	1014	0.83		$1,000,000 - $5,000,000	2948	0.82	
8. Limited Partnership VCs versus Government Investors				21. Amounts Invested <$100,000 versus >$5,000,000			
Private Independent Limited Partnerships	2753	0.82	-14.73***	<$100,000	1119	0.82	8.09***
Government	1722	0.97		>$5,000,000	467	0.63	
9. Limited Partnership VCs versus Institutional Investors				22. Deal Size <$100,000 versus $100,000 - $500,000			
Private Independent Limited Partnerships	2753	0.82	-4.52***	<$100,000	610	0.93	0.61
Institutional	1144	0.87		$100,000 - $500,000	2486	0.92	
10. Limited Partnership VCs versus LSVCCs				23. Deal Size <$100,000 versus $500,000 - $1,000,000			
Private Independent Limited Partnerships	2753	0.82	-12.52***	<$100,000	610	0.93	2.60***
LSVCCs	3404	0.92		$500,000 - $1,000,000	1483	0.89	
11. Investment Years 1991 - 1994 versus 1995 - 1998				24. Deal Size <$100,000 versus $1,000,000 - $5,000,000			
1991 - 1994	962	0.89	1.63	<$100,000	610	0.93	4.72***
1995 - 1998	3243	0.87		$1,000,000 - $5,000,000	3619	0.86	
12. Investment Years 1991 - 1994 versus 1999 - 2000				25. Deal Size <$100,000 versus >$5,000,000			
1991 - 1994	962	0.89	3.92***	<$100,000	610	0.93	11.06***
1999 - 2000	3016	0.83		>$5,000,000	2034	0.71	
13. Investment Years 1991 - 1994 versus 2001 - 2003(Q1)				26. Investor Has Offices in >1 Province versus only 1 Province			
1991 - 1994	962	0.89	3.15***	Investor has offices in more than 1 province	2968	0.89	19.94***
2001 - 2003(Q1)	339	0.82		Investor has offices in 1 province only	7264	0.70	

Table 1 continues on the following page…

Table 1 (Continued). Comparison of Proportions Tests for Proportions of Investments where Entrepreneurs and Investors are in the Same Province

This table reports comparisons of proportions tests of the number of times investments occurred in which investors entrepreneurs were in the same province as a proportion of the total number of financings for the listed characteristics of the venture capitalist, entrepreneur, and financing arrangement. A positive (negative) and significant number indicates that the top number is a greater (smaller) proportion of investors and entrepreneurs were in the same province. *, **, *** Significant at the 10%, 5%, and 1% levels, respectively.

	#	Proportion	Proportion Equal?		#	Proportion	Proportion Equal?
27. Common Equity versus Preferred Equity				40. ON Entrepreneurs versus NF Entrepreneurs			
Common Equity	3212	0.85	3.73***	ON	3530	0.87	NA
Preferred Equity	878	0.80		NF	0	0.00	
28. Common Equity versus Convertible Preferred Equity				41. ON Entrepreneurs versus NB Entrepreneurs			
Common Equity	3212	0.85	3.76***	ON	3530	0.87	8.14***
Convertible Preferred Equity	893	0.80		NB	18	0.21	
29. Common Equity versus Debt				42. ON Entrepreneurs versus NS Entrepreneurs			
Common Equity	3212	0.85	-4.93***	ON	3530	0.87	6.97***
Debt	1630	0.90		NS	101	0.63	
30. Common Equity versus Convertible Debt				43. ON Entrepreneurs versus PEI Entrepreneurs			
Common Equity	3212	0.85	0.40	ON	3530	0.87	3.39***
Convertible Debt	1209	0.84		PEI	5	0.36	
31. Common Equity versus Warrants				44. ON Investors versus BC Investors			
Common Equity	3212	0.85	0.42	ON	3530	0.79	-14.01***
Warrants	53	0.83		BC	999	0.98	
32. Common Equity versus Mixes of Debt and Common Equity				45. ON Investors versus AB Investors			
Common Equity	3212	0.85	-5.17***	ON	3530	0.79	1.12
Debt and Common	529	0.93		AB	156	0.75	
33. Common Equity versus Mixes of Preferred and Common Equity				46. ON Investors versus SK Investors			
Common Equity	3212	0.85	-1.23	ON	3530	0.79	-3.07***
Preferred and Commonn	187	0.88		SK	146	0.90	
34. Common Equity versus Other Combinations				47. ON Investors versus MB Investors			
Common Equity	3212	0.85	3.58***	ON	3530	0.79	-5.20***
Other	1641	0.81		MB	315	0.91	
35. ON Entrepreneurs versus BC Entrepreneurs				48. ON Investors versus QC Investors			
ON	3530	0.87	13.50***	ON	3530	0.79	-19.85***
BC	999	0.69		QC	4962	0.94	
36. Entrepreneurs versus AB Entrepreneurs				49. ON Investors versus NF Investors			
ON	3530	0.87	17.44***	ON	3530	0.79	NA
AB	156	0.36		NF	0	0.00	
37. ON Entrepreneurs versus SK Entrepreneurs				50. ON Investors versus NB Investors			
ON	3530	0.87	3.65***	ON	3530	0.79	-1.14
SK	146	0.76		NB	18	0.90	
38. ON Entrepreneurs versus MB Entrepreneurs				51. ON Investors versus NS Investors			
ON	3530	0.87	1.25	ON	3530	0.79	0.90
MB	315	0.84		NS	101	0.75	
39. ON Entrepreneurs versus QC Entrepreneurs				52. ON Investors versus PEI Investors			
ON	3530	0.87	-9.89***	ON	3530	0.79	-1.15
QC	4962	0.93		PEI	5	1.00	

Table 2. Correlation Matrix

This table presents the correlation coefficients between a dummy variable for investments with entrepreneurs and investors located in the same province, and a number of investor and entrepreneur characteristics, as well as the log of the deal size, and dumhe correlation coeffi province of residence of the entrepreneur, and dummy variables for the year of investment. These variables are used for the multivariate tests in the subsequent tables.

	Dummy Variable for Investor and Entrepreneur in Same Province	Dummy Variable for Government Investor or LSVCC	Dummy Variable for Public Company	Dummy Variable for Buyout Company	Dummy Variable for Turnaround Company	Dummy Variable for Tech Company (Life Science or Other High-Tech)	Log of the Total Deal Size	# Provinces in which Investor has Offices	Dummy Variable for Alberta Entrepreneur	Dummy Variable for Saskatchewan Entrepreneur	Dummy Variable for Manitoba Entrepreneur	Dummy Variable for Ontario Entrepreneur	Dummy Variable for Quebec Entrepreneur	Dummy Variable for New Brunswick Entrepreneur	Dummy Variable for Nova Scotia Entrepreneur	Dummy Variable for PEI Entrepreneur	Dummy Variable for Investment in 2003	Dummy Variable for Investment in 2002	Dummy Variable for Investment in 2001	Dummy Variable for Investment in 2000	Dummy Variable for Investment in 1999	Dummy Variable for Investment in 1998	Dummy Variable for Investment in 1997	Dummy Variable for Investment in 1996	Dummy Variable for Investment in 1995	Dummy Variable for Investment in 1994	Dummy Variable for Investment in 1993	Dummy Variable for Investment in 1992
Dummy Variable for Investor and Entrepreneur in Same Province	1.00																											
Dummy Variable for Government Investor or LSVCC	0.17	1.00																										
Dummy Variable for Public Company	-0.05	0.03	1.00																									
Dummy Variable for Buyout Company	0.01	0.01	0.02	1.00																								
Dummy Variable for Turnaround Company	0.08	0.15	0.00	-0.05	1.00																							
Dummy Variable for Tech Company (Life Science or Other High-Tech)	-0.06	-0.12	0.08	-0.11	-0.17	1.00																						
Log of the Total Deal Size	-0.15	-0.05	0.07	0.06	-0.15	0.25	1.00																					
# Provinces in which Investor has Offices	0.05	0.24	0.05	0.01	-0.05	0.13	0.16	1.00																				
Dummy Variable for Alberta Entrepreneur	-0.28	-0.09	0.05	0.01	-0.04	-0.05	0.02	0.03	1.00																			
Dummy Variable for Saskatchewan Entrepreneur	0.00	0.10	-0.01	0.04	-0.03	-0.05	-0.02	0.06	-0.02	1.00																		
Dummy Variable for Manitoba Entrepreneur	0.00	0.07	-0.02	-0.01	-0.03	-0.10	-0.06	-0.06	-0.04	-0.02	1.00																	
Dummy Variable for Ontario Entrepreneur	0.06	0.01	0.07	-0.02	-0.09	0.15	0.19	0.09	-0.12	-0.08	-0.12	1.00																
Dummy Variable for Quebec Entrepreneur	0.20	0.02	-0.11	0.03	0.17	-0.13	-0.22	-0.29	-0.19	-0.13	-0.19	-0.63	1.00															
Dummy Variable for New Brunswick Entrepreneur	-0.16	-0.02	-0.02	0.00	-0.02	0.02	0.01	0.03	-0.02	-0.01	-0.02	-0.05	-0.08	1.00														
Dummy Variable for Nova Scotia Entrepreneur	-0.07	-0.02	-0.04	0.00	-0.03	0.05	-0.04	0.04	-0.02	-0.01	-0.02	-0.07	-0.11	-0.01	1.00													
Dummy Variable for PEI Entrepreneur	-0.06	-0.01	0.00	0.05	-0.01	-0.01	-0.02	0.03	-0.01	0.00	-0.01	-0.02	-0.04	0.00	0.00	1.00												
Dummy Variable for Investment in 2003	0.00	0.01	-0.04	-0.03	-0.03	0.01	0.01	-0.01	0.00	0.04	0.01	-0.03	0.02	-0.01	-0.01	-0.01	1.00											
Dummy Variable for Investment in 2002	0.00	0.06	-0.07	-0.01	-0.03	0.06	0.10	0.00	-0.01	0.01	0.01	-0.04	0.01	0.01	0.01	-0.01	-0.07	1.00										
Dummy Variable for Investment in 2001	0.00	-0.02	-0.09	0.00	-0.04	0.11	0.08	0.01	-0.02	-0.03	0.05	0.01	-0.03	0.03	0.00	-0.01	-0.07	-0.15	1.00									
Dummy Variable for Investment in 2000	-0.02	-0.06	-0.03	-0.02	-0.04	0.09	0.09	-0.01	0.01	-0.01	0.00	0.02	-0.02	-0.01	0.01	0.02	-0.08	-0.18	-0.19	1.00								
Dummy Variable for Investment in 1999	-0.01	-0.02	0.03	0.02	0.03	0.01	0.02	0.03	-0.01	0.00	0.01	-0.01	0.01	0.00	0.01	0.00	-0.06	-0.14	-0.15	-0.17	1.00							
Dummy Variable for Investment in 1998	0.01	0.02	0.03	-0.04	0.03	-0.02	-0.09	0.00	0.00	-0.01	-0.03	-0.01	0.03	0.00	0.03	0.00	-0.06	-0.13	-0.14	-0.16	-0.13	1.00						
Dummy Variable for Investment in 1997	-0.01	0.04	0.06	-0.01	0.04	-0.03	-0.06	0.00	0.00	0.02	-0.01	0.01	0.01	-0.01	-0.01	0.00	-0.06	-0.13	-0.14	-0.15	-0.13	-0.12	1.00					
Dummy Variable for Investment in 1996	0.00	0.02	0.06	0.01	0.03	-0.04	-0.05	0.03	-0.01	0.03	-0.01	0.00	0.01	0.01	0.00	0.01	-0.04	-0.10	-0.10	-0.12	-0.10	-0.09	-0.09	1.00				
Dummy Variable for Investment in 1995	0.02	-0.01	0.07	0.02	-0.02	-0.07	-0.05	0.01	-0.01	-0.01	-0.01	0.01	0.01	-0.01	-0.02	-0.01	-0.04	-0.08	-0.08	-0.09	-0.08	-0.07	-0.07	-0.05	1.00			
Dummy Variable for Investment in 1994	0.02	0.00	0.03	0.01	0.01	-0.08	-0.04	-0.01	-0.01	0.00	-0.01	0.01	0.01	-0.01	-0.02	-0.01	-0.03	-0.07	-0.07	-0.08	-0.06	-0.06	-0.06	-0.04	-0.03	1.00		
Dummy Variable for Investment in 1993	0.02	-0.02	0.03	0.02	0.01	-0.10	-0.06	-0.03	0.01	0.00	-0.01	0.01	0.01	-0.01	-0.02	0.01	-0.03	-0.06	-0.07	-0.07	-0.06	-0.06	-0.05	-0.04	-0.03	-0.03	1.00	
Dummy Variable for Investment in 1992	0.01	-0.02	0.01	0.05	0.05	-0.12	-0.07	-0.02	0.06	-0.01	-0.01	0.03	-0.03	-0.01	-0.01	-0.01	-0.03	-0.06	-0.06	-0.07	-0.06	-0.05	-0.05	-0.04	-0.03	-0.03	-0.02	1.00

Table 3. Multivariate Logit Regressions for the Likelihood that the Entrepreneur and the Investor are in the Same Province

Dependent variable: a dummy equal to one if the entrepreneur and the investor are located in the same province. The deal size is measured in thousands of Canadian dollars; other explanatory variables are as defined. 10450 observations (excluded: foreign investments and investments in which the location of the investor was unknown). *, **, *** Significant at the 10%, 5%, and 1% levels, respectively.

	Model 1		Model 2		Model 3		Model 4		Model 5		
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Marginal Effect
Constant	1.61	41.59***	1.73	26.94***	3.47	22.51***	2.19	10.93***	1.93	6.29***	0.13
Dummy Variable for Government Investor or LSVCC	1.15	17.17***	1.07	15.82***	1.00	14.16***	0.67	8.51***	0.67	8.46***	0.04
Dummy Variable for Public Company	-0.48	-6.15***	-0.47	-5.92***	-0.44	-5.56***	-0.27	-3.00***	-0.22	-2.32**	-0.01
Dummy Variable for Buyout Company			0.09	0.53	0.30	1.70***	0.29	1.42	0.26	1.29	0.02
Dummy Variable for Turnaround Company			1.87	5.80***	1.74	5.37***	1.14	3.45***	1.16	3.50***	0.08
Dummy Variable for Tech Company (Life Science or Other High-Tech)			-0.21	-3.01***	0.00	0.06	-0.27	-3.23***	-0.28	-3.32***	-0.02
Log of the Total Deal Size					-0.28	-13.77***	-0.29	-13.01***	-0.30	-13.01***	-0.02
# Provinces in which the Investor has Offices					0.10	3.42***	0.44	12.18***	0.45	12.29***	0.03
Dummy Variable for Alberta Entrepreneur							-1.31	-9.39***	-1.31	-9.31***	-0.09
Dummy Variable for Saskatchewan Entrepreneur							0.48	1.86*	0.53	2.05***	0.04
Dummy Variable for Manitoba Entrepreneur							1.05	5.46***	1.06	5.47***	0.07
Dummy Variable for Ontario Entrepreneur							1.78	17.32***	1.80	17.36***	0.12
Dummy Variable for Quebec Entrepreneur							2.11	20.39***	2.13	20.41***	0.14
Dummy Variable for New Brunswick Entrepreneur							-2.45	-7.83***	-2.47	-7.81***	-0.16
Dummy Variable for Nova Scotia Entrepreneur							-0.27	-1.26	-0.24	-1.11***	-0.02
Dummy Variable for PEI Entrepreneur							-2.49	-3.79***	-2.45	-3.76***	-0.16
Dummy Variable for Investment in 2003									0.23	0.73	0.02
Dummy Variable for Investment in 2002									0.45	1.67*	0.03
Dummy Variable for Investment in 2001									0.47	1.74*	0.03
Dummy Variable for Investment in 2000									0.36	1.34	0.02
Dummy Variable for Investment in 1999									0.17	0.63	0.01
Dummy Variable for Investment in 1998									0.24	0.87	0.02
Dummy Variable for Investment in 1997									0.04	0.13	0.00
Dummy Variable for Investment in 1996									0.09	0.32	0.01
Dummy Variable for Investment in 1995									0.38	1.19	0.03
Dummy Variable for Investment in 1994									0.41	1.19	0.03
Dummy Variable for Investment in 1993									0.80	2.16**	0.05
Dummy Variable for Investment in 1992									0.57	1.58	0.04
Model Diagnostics:											
Loglikelihood	-3679.01		-3639.50		-3537.44		-2942.92		-2931.38		
Chi-Square	358.40***		437.32***		641.54***		1830.59***		1853.67***		
Actual Outcomes	Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		
	0	1	0	1	0	1	0	1	0	1	
0	0	1266	0	1266	0	1266	345	921	350	916	
1	0	9184	0	9184	0	9184	196	8988	192	8992	

Table 4. Multivariate Logit Regressions for the Likelihood that the Entrepreneur and the Investor are in the Same Province, Ontario Entrepreneurial Firms Only

Dependent variable: a dummy equal to one if the entrepreneur and the investor are located in the same province. The deal size is measured in thousands of Canadian dollars; other explanatory variables are as defined. Ontario entrepreneurs only. The number of provinces in which the investor has offices was necessarily excluded as all investors with offices in more than 1 province had invested in Ontario entrepreneurial firms (i.e., there was no variation in the dependent and independent variables). 3005 observations (also excluded: foreign investments and investments in which the location of the investor was unknown). *, **, *** Significant at the 10%, 5%, and 1% levels, respectively.

	Model 1		Model 2		Model 3		Model 4		
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Marginal Effect
Constant	1.66	21.97***	1.64	9.59***	1.67	5.20***	1.03	1.96**	0.05
Dummy Variable for Government Investor or LSVCC	2.22	11.37***	2.22	11.23***	2.22	11.19***	2.25	11.20***	0.11
Dummy Variable for Public Company	-0.05	-0.28	-0.10	-0.57	-0.10	-0.57	-0.32	-1.68*	-0.02
Dummy Variable for Buyout Company			0.75	1.57	0.75	1.57	0.75	1.53	0.04
Dummy Variable for Turnaround Company			1.22	1.67*	1.22	1.67*	1.19	1.61	0.06
Dummy Variable for Tech Company (Life Science or Other High-Tech)			-0.01	-0.04	0.00	-0.01	0.19	0.99	0.01
Log of the Total Deal Size					-0.005	-0.12	0.02	0.51	0.001
Number of Provinces in which the Investor has Offices					NA	NA	NA	NA	NA
Dummy Variable for Investment in 2003							-0.36	-0.62	-0.02
Dummy Variable for Investment in 2002							-0.02	-0.05	0.00
Dummy Variable for Investment in 2001							0.22	0.45	0.01
Dummy Variable for Investment in 2000							0.28	0.57	0.01
Dummy Variable for Investment in 1999							0.24	0.48	0.01
Dummy Variable for Investment in 1998							0.26	0.52	0.01
Dummy Variable for Investment in 1997							0.45	0.88	0.02
Dummy Variable for Investment in 1996							0.53	0.95	0.03
Dummy Variable for Investment in 1995							2.85	2.57**	0.14
Dummy Variable for Investment in 1994							0.26	0.42	0.01
Dummy Variable for Investment in 1993							0.91	1.39	0.04
Dummy Variable for Investment in 1992							2.49	2.24**	0.12
Model Diagnostics:									
Loglikelihood	-804.73		-801.23		-801.22		-784.87		
Chi-Square	202.08***		209.08***		209.10***		241.80***		
Actual Outcomes	Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		
	0	1	0	1	0	1	0	1	
0	0	269	0	269	0	269	0	269	
1	0	2736	0	2736	0	2736	0	2736	

Table 5. Multivariate Logit Regressions for the Likelihood that the Entrepreneur and the Investor are in the Same Province, Quebec Entrepreneurial Firms Only

Dependent variable: a dummy equal to one if the entrepreneur and the investor are located in the same province. The deal size is measured in thousands of Canadian dollars; other explanatory variables are as defined. Quebec entrepreneurs only. 5152 observations (also excluded: foreign investments and investments in which the location of the investor was unknown). *, **, *** Significant at the 10%, 5%, and 1% levels, respectively.

	Model 1		Model 2		Model 3		Model 4		
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Marginal Effect
Constant	2.62	32.69***	3.21	21.64***	6.34	18.25***	5.16	10.82***	0.14
Dummy Variable for Government Investor or LSVCC	0.99	7.29***	0.82	5.99***	1.06	7.07***	0.95	6.19***	0.03
Dummy Variable for Public Company	-0.96	-6.21***	-0.83	-5.24***	-0.68	-4.19***	-0.44	-2.57**	-0.01
Dummy Variable for Buyout Company			-0.04	-0.13	0.38	1.11	0.43	1.24	0.01
Dummy Variable for Turnaround Company			1.30	2.82***	1.04	2.25**	1.25	2.65***	0.03
Dummy Variable for Tech Company (Life Science or Other High-Tech)			-0.87	-5.58***	-0.47	-2.88***	-0.81	-4.57***	-0.02
Log of the Total Deal Size					-0.455	-10.17***	-0.52	-10.92***	-0.014
# Provinces in which the Investor has Offices					-0.192	-3.38***	-0.17	-2.88***	-0.004
Dummy Variable for Investment in 2003							2.60	4.43***	0.07
Dummy Variable for Investment in 2002							2.38	5.67***	0.06
Dummy Variable for Investment in 2001							2.51	5.95***	0.07
Dummy Variable for Investment in 2000							2.10	5.30***	0.06
Dummy Variable for Investment in 1999							2.09	5.10***	0.06
Dummy Variable for Investment in 1998							2.12	5.03***	0.06
Dummy Variable for Investment in 1997							1.43	3.57***	0.04
Dummy Variable for Investment in 1996							1.25	3.01***	0.03
Dummy Variable for Investment in 1995							1.01	2.40**	0.03
Dummy Variable for Investment in 1994							1.71	3.25***	0.05
Dummy Variable for Investment in 1993							2.12	3.59***	0.06
Dummy Variable for Investment in 1992							0.32	0.65	0.01
Model Diagnostics:									
Loglikelihood	-1035.23		-1007.63		-945.17		-907.54		
Chi-Square	87.78***		142.99***		267.91***		343.16***		
Actual Outcomes	Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		
	0	1	0	1	0	1	0	1	
0	0	277	0	277	0	277	1	276	
1	0	4875	0	4875	0	4875	3	4872	

Table 6. Multivariate Logit Regressions for the Likelihood that the Entrepreneur and the Investor are in the Same Province, British Columbia Entrepreneurial Firms Only

Dependent variable: a dummy equal to one if the entrepreneur and the investor are located in the same province. The deal size is measured in thousands of Canadian dollars; other explanatory variables are as defined. British Columbia entrepreneurs only. 1158 observations (also excluded: foreign investments and investments in which the location of the investor was unknown). *, **, *** Significant at the 10%, 5%, and 1% levels, respectively.

	Model 1		Model 2		Model 3		Model 4		
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Marginal Effect
Constant	0.72	7.70***	0.56	3.74***	1.25	2.23**	1.10	1.34	0.05
Dummy Variable for Government Investor or LSVCC	0.87	6.01***	0.86	5.95***	-3.77	-6.78***	-3.77	-6.74***	-0.18
Dummy Variable for Public Company	-0.16	-0.99	-0.15	-0.95	-0.25	-1.09	-0.16	-0.63	-0.01
Dummy Variable for Buyout Company			-0.24	-0.53	-0.78	-1.12	-0.88	-1.17	-0.04
Dummy Variable for Turnaround Company			1.19	1.56	-0.62	-0.68	-0.69	-0.70	-0.03
Dummy Variable for Tech Company (Life Science or Other High-Tech)			0.19	1.21	0.66	2.69***	0.75	2.83***	0.04
Log of the Total Deal Size					-0.607	-8.18***	-0.63	-8.06***	-0.030
# Provinces in which the Investor has Offices					2.737	12.86***	2.80	12.97***	0.134
Dummy Variable for Investment in 2003							-0.62	-0.64	-0.03
Dummy Variable for Investment in 2002							0.48	0.68	0.02
Dummy Variable for Investment in 2001							0.52	0.74	0.02
Dummy Variable for Investment in 2000							0.15	0.22	0.01
Dummy Variable for Investment in 1999							-0.22	-0.30	-0.01
Dummy Variable for Investment in 1998							-0.84	-1.12	-0.04
Dummy Variable for Investment in 1997							-0.02	-0.02	0.00
Dummy Variable for Investment in 1996							0.44	0.52	0.02
Dummy Variable for Investment in 1995							0.47	0.51	0.02
Dummy Variable for Investment in 1994							0.59	0.72	0.03
Dummy Variable for Investment in 1993							1.04	0.96	0.05
Dummy Variable for Investment in 1992							0.32	0.36	0.02
Model Diagnostics:									
Loglikelihood	-651.26		-648.87		-295.22		-286.90		
Chi-Square	40.98***		45.74***		753.05***		769.68***		
Actual Outcomes	Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		
	0	1	0	1	0	1	0	1	
0	0	309	0	309	234	75	237	72	
1	0	849	0	849	74	775	70	779	

Table 7. Multivariate Logit Regressions for the Likelihood that the Entrepreneur and the Investor are in the Same Province, Alberta Entrepreneurial Firms Only

Dependent variable: a dummy equal to one if the entrepreneur and the investor are located in the same province. The deal size is measured in thousands of Canadian dollars; other explanatory variables are as defined. Alberta entrepreneurs only. 360 observations (also excluded: foreign investments and investments in which the location of the investor was unknown). *, **, *** Significant at the 10%, 5%, and 1% levels, respectively.

	Model 1		Model 2		Model 3		Model 4		
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Marginal Effect
Constant	-0.09	-0.63	-0.23	-1.23	0.78	1.35	1.78	2.09**	0.41
Dummy Variable for Government Investor or LSVCC	-0.99	-3.56***	-0.94	-3.33***	-1.92	-4.40***	-1.95	-3.76***	-0.45
Dummy Variable for Public Company	-0.49	-1.79*	-0.62	-2.17**	-0.56	-1.94*	-0.71	-2.00**	-0.16
Dummy Variable for Buyout Company			1.51	2.64**	1.47	2.44**	1.69	2.53**	0.39
Dummy Variable for Turnaround Company			0.62	0.42	0.51	0.36	-0.33	-0.19	-0.08
Dummy Variable for Tech Company (Life Science or Other High-Tech)			0.16	0.69	-0.18	-0.75	0.41	1.35	0.10
Log of the Total Deal Size					-0.205	-2.73***	-0.16	-1.78*	-0.037
# Provinces in which the Investor has Offices					0.457	3.88***	0.58	4.29***	0.135
Dummy Variable for Investment in 2003							-2.65	-2.63***	-0.61
Dummy Variable for Investment in 2002							-2.70	-3.74***	-0.63
Dummy Variable for Investment in 2001							-2.20	-3.10***	-0.51
Dummy Variable for Investment in 2000							-2.08	-3.15***	-0.48
Dummy Variable for Investment in 1999							-2.76	-3.80***	-0.64
Dummy Variable for Investment in 1998							-2.21	-3.17***	-0.51
Dummy Variable for Investment in 1997							-3.10	-4.13***	-0.72
Dummy Variable for Investment in 1996							-1.99	-2.40**	-0.46
Dummy Variable for Investment in 1995							1.76	1.40	0.41
Dummy Variable for Investment in 1994							0.23	0.18	0.05
Dummy Variable for Investment in 1993							-0.45	-0.49	-0.11
Dummy Variable for Investment in 1992							0.06	0.07	0.01
Model Diagnostics:									
Loglikelihood	-232.79		-228.78		-216.80		-181.29		
Chi-Square	18.16***		26.19***		50.15***		121.17***		
Actual Outcomes	Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		Predicted Outcomes		
	0	1	0	1	0	1	0	1	
0	217	0	213	4	170	47	177	40	
1	143	0	130	13	105	38	65	78	